Australian Bureau of Statistics

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Welcome to Education Services

Bringing Data to Life in the Classroom

Education Services assists educators in communicating to students the importance of using quality statistical data to inform and critically analyse their research.

CensusAtSchool is the flagship project of ABS Education Services. It is an online questionnaire for students with Random Sampler access to the real, raw data about Australian school students. It is FREE for all Australian schools.

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*This link takes you to an external website.

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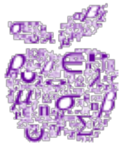
Education Services

Education Services

About Education Services



'Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write.'
Samuel S Wilks paraphrasing HG Wells

At the ABS, we recognise the crucial role the education sector plays in teaching the future decision makers of Australia. Our aim is to assist educators in communicating to students the importance of using quality statistical data to inform and critically analyse their research.

In 1994, the Education Services Unit (formerly the National Education Services Unit) was created to provide nationwide specialist services to the education sector particularly for Year levels 1–12.

The goals of the Education Services Unit (ESU) are to:

1. Improve the statistical literacy of Australian teachers and students;
2. Increase awareness and use of ABS statistics, promoting appropriate use within the classroom; and
3. Be seen to be influential in statistical education.

The Education Services Unit consists of teacher consultants and other professionals who provide free materials and activities that align with many of the statistical components outlined in the Australian curriculum.

Through our webpages, you can access:

- datasets covering topics such as economy, society and community, population and environment and energy.
- activities covering topics such as mathematics, geography and the Census of Population and Housing.
- links to relevant webpages such as CensusAtSchool, Indigenous Statistics for Schools and Census.

The leading project at Education Services is CensusAtSchool. It includes a dynamic and ongoing questionnaire that asks students non-invasive question about their lives, experiences, opinions and interests. The questionnaire opens at the end of January and closes at the beginning of July. We make the data collected in the current questionnaire available once the questionnaire closes; however, there is a large amount of data from previous questionnaires that you can access all year round. We've also used CensusAtSchool data to develop a huge range of free activities that can be downloaded from our webpages.

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About Education Services

Contact Us & Feedback

If you require assistance or wish to provide feedback, please contact us:

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Operating from 8:30am to 4:30pm (AEST)

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Email: education@abs.gov.au

For CensusAtSchool enquiries or feedback, you can use the above postal and phone contact details. Alternatively, you can email the team at censusatschool@abs.gov.au

National Information and Referral Services (NIRS)

If you would like assistance with statistical or publication enquiries, please contact the ABS National Information and Referral Service (NIRS).

NIRS operating hours are 9am to 5pm (AEST).

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This page last updated 29 August 2013

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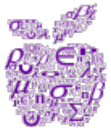
Education Services

Education Services home page

Teacher Statistical Literacy



Steps In Running A Survey

Step 1: Planning a survey

a) Identifying your question

One of the first things you need to clarify when designing a survey is exactly what you want to find out. Start by writing your question as clearly as you can. Include as much detail as possible so that everyone else will interpret the question in the same way as you.

For example, if you wanted to find out "What times do students get up in the morning?" you would need to clarify:

- Is it a normal school day, a weekend or a holiday e.g. “What time do students get up on a normal school day?”
- Will it matter if students have different school starting times? Compare the question “How long before school starts do students get up?”
- What units do you want to use to collect the data? “How many minutes before school starts do students get up?”
- How will part units be reported? Do you want data to the closest whole number? If you plan to have fractions can these be decimals?

State your definitions

You will also need to state some definitions:

- ‘student’ is defined as Year 7 and Year 11 Australian school students

- ‘getting up time’ is the time students get out of bed on a school day.

It is important that you maintain these definitions throughout your investigation and in any report. If your question is not clearly defined, the participants in your survey may interpret the question differently and your results won't be accurate.

b) Deciding who to include in your sample

Participant characteristics

Next you need to specify the scope of your sample. For example, are you looking at a particular age group or year level or location? In these cases. your question might be “How many minutes before school starts do Year 7 students get up compared with Year 11 students?” or "How many minutes before school starts do students in Queensland get up compared with students in South Australia?".

Sample size

Estimates are made about the total population and subgroups based on the information from the sample. Generally, larger samples will give a more accurate representation of the population. However, it can be difficult to obtain accurate information on smaller groups within the population if the sample size is small.
In addition, the level of accuracy can usually be measured. There are formulae to determine the size of the sample that should be taken depending on the level of confidence required. One of the simplest is:

Sample size = $\sqrt{n}$
(where n is the size of the population)

Randomness

To allow predictions to be confidently made about the total population, samples need to be randomly selected as well as of sufficient size. For data to be selected randomly, each data item must have the same chance of being selected as any other. Pulling data items from a hat or using the random number generator on a calculator are common ways of ensuring that data are selected randomly. Data not selected randomly may be biased towards a particular outcome.

Types of Sampling

There are a number of ways that a sample can be randomly drawn from a population. For example, you may want to ensure that each subgroup of a population is represented in the same proportion as in the general population.
For more information on types of sampling see our Glossary page.

Step 2: Collecting data

Once you have decided on your question, how many people will be in your sample, and randomly selected them, you will need to consider how to collect the data. Will it be through an interview or will you collect written responses? The data you collect will also need to be in a form that is easily organised in order to analyse it. For example, you need consistency in units and fractional answers so request that the data be recorded to the nearest centimetre or half centimetre.

Interview

In an interview, a participant can ask questions if they haven't understood something.

Written response

Written responses can be completed by many participants at the same time and are quicker than interviews.

Variables

A variable is any measurable characteristic or attribute that can have different values for different subjects – for example, eye colour, distance from school etc. Characteristic is another way of saying variable. For example, height, age or country of birth are all characteristics or variables of people.

Step 3: Organising data

After you have collected the data, it needs to be organised so that it is useful and ready to display.

Frequency tables

A useful way to record raw data is a tally table or frequency table.
A frequency table counts the number of times – or frequency – a value occurs in the data. For example, twenty people are asked "How many TVs do you have in your household?" If 2 households have 1 TV, the frequency of households with 1 TV is 2.

Frequency tables with class intervals

When a variable has a large spread, the values can be grouped together to make the data easier to manage and present.
For example, if you asked students how much time it takes them to get to

NUMBER OF TVs	TALLY	FREQUENCY (f)
0	I I I I	4
1	I I	2
2	~~I I I I~~ I	6
3	~~I I I I~~ I I I	8

Figure 1: Frequency table of number of TVs per household

TIME TAKEN TO GET TO SCHOOL (min)	TALLY	FREQUENCY (f)
1 - 5	~~I I I I~~ I I	7
6 - 10	~~I I I I~~ I I I I	9

school each day, their responses may vary considerably. In this case, you can group the responses together in 5 minute intervals. These intervals are called class intervals. All class intervals should have an equal range. Class intervals are usually in groups of 5, 10, 20, 50 etc.

11 - 15	~~IIII~~ IIII	9
16 - 20	1	1

Figure 2: Example of a frequency table showing five minute class intervals

Step 4: Displaying information

How will you present your findings? Will you use tables, graphs or both? What sort of table or graph is most appropriate?

One of the most powerful ways to communicate data is by using graphs. Data presented in a graph can be quick and easy to understand.

A graph should:

- be simple and not too cluttered
- show data without changing the data’s meaning
- show any trend or differences in the data
- be accurate in a visual sense – for example, if one value is 15 and another 30, then 30 should be twice the size of 15

Ambiguity can be reduced by

- avoiding 3D representations
- avoiding broken or uneven scales

It is important that you give each graph a heading. Axes must be labelled and any scale must have equal intervals. A key should be included where it is needed to interpret the data.

Different graphs are useful for different types of information and it is important that the right graph for the type of data is selected. See What graph or display to use when for more information.

Consider the type of data you have collected when choosing a display or graph.

Type of data	Appropriate display or graph
Categorical	Bar graph, pie chart, dot plot
Numerical (discrete)	Bar graph, histogram, line graph, box and whisker plot, stem and leaf plot, age pyramid

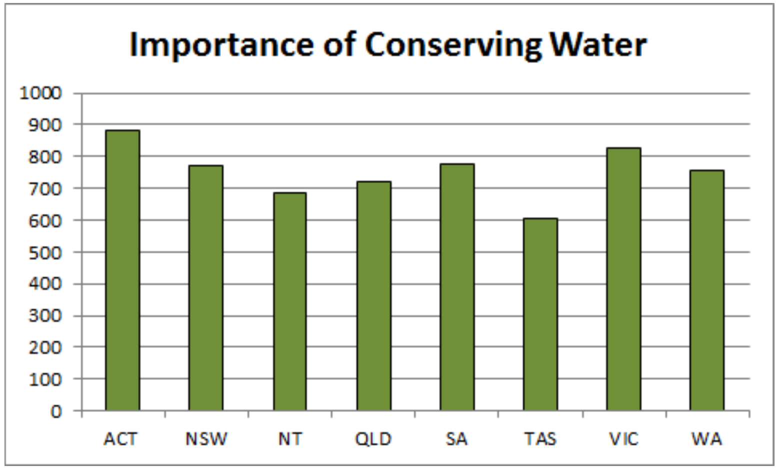
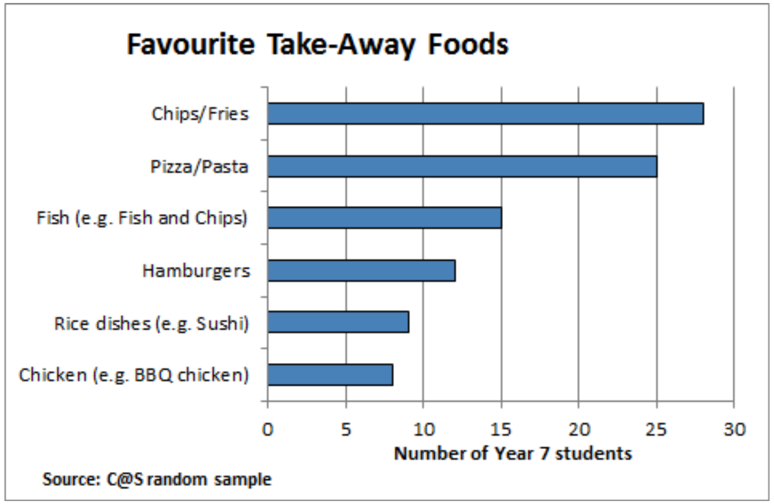


Figure 3: Bar graph showing importance of conserving water.
Input from 0 (Not Important) to 999 (Very Important)
Source: 2010 C@S National summary table 28.



Source: C@S random sample

Figure 4: A horizontal bar graph

Numerical (continuous)	Histogram, line graph, box and whisker plot, stem and leaf plot

Bar graphs – Figure 3
A bar graph is used to represent categorical or discrete numerical data. A bar graph has a gap between each bar or set of bars and the widths of the gaps and bars are consistent. The length of the bars in a bar graph is also important: the greater the length, the greater the value. A bar graph can be either horizontal or vertical – vertical bar graphs are also known as column graphs.

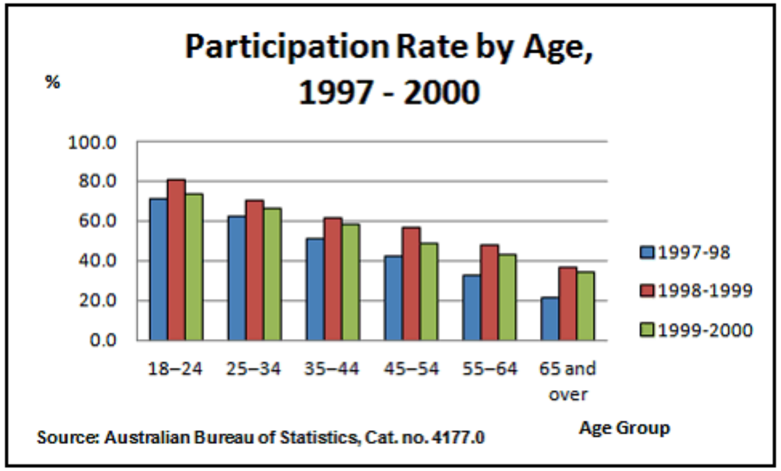
Horizontal bar graphs – Figure 4
The advantage of using a horizontal bar graph over a column graph is that the category labels in a horizontal bar graph can be fully displayed making the graph easier to read.

Side by side bar or column graphs – Figure 5
Side by side bar graphs are useful to compare two or more groups for the same data.

Stacked bar or column graphs – Figure 6
Stacked or segmented bar graphs are sometimes used to display a breakdown of data for a particular group – for example, the breakdown of types of internet use by sex. They are most useful when the data is shown as a percentage value and the number of categories is very small. If there are too many categories, the frequency of the datasets can be difficult to read and compare.

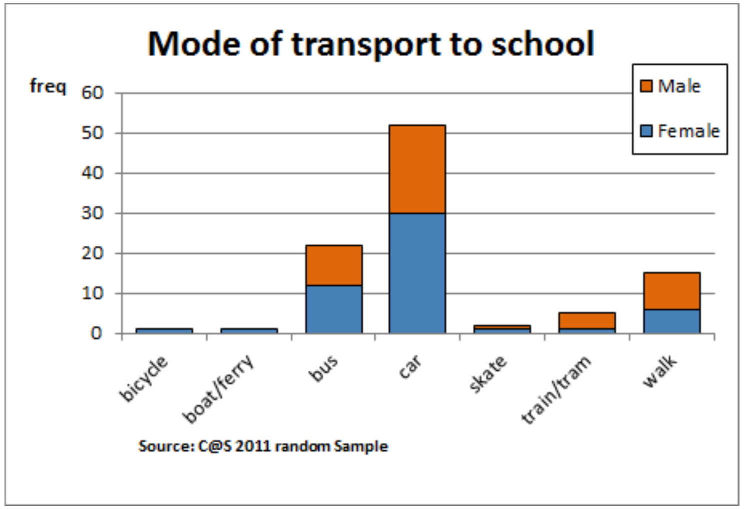
Histograms – Figure 7
A histogram is similar to a column graph, however, there are no gaps between columns. Histograms are used for numerical data only. Data can be either discrete or continuous and grouped or ungrouped. A histogram should have equal width columns when possible.

Line Graphs
Line graphs are used for numerical data. They show how one variable changes in relation to another. The independent variable is always displayed on the horizontal axis. It is important to use a consistent scale on each axis so you can get an



Source: Australian Bureau of Statistics, Cat. no. 4177.0

Figure 5: A side by side column graph



Source: C@S 2011 random Sample

Figure 6: A stacked bar graph

accurate sense of the data.

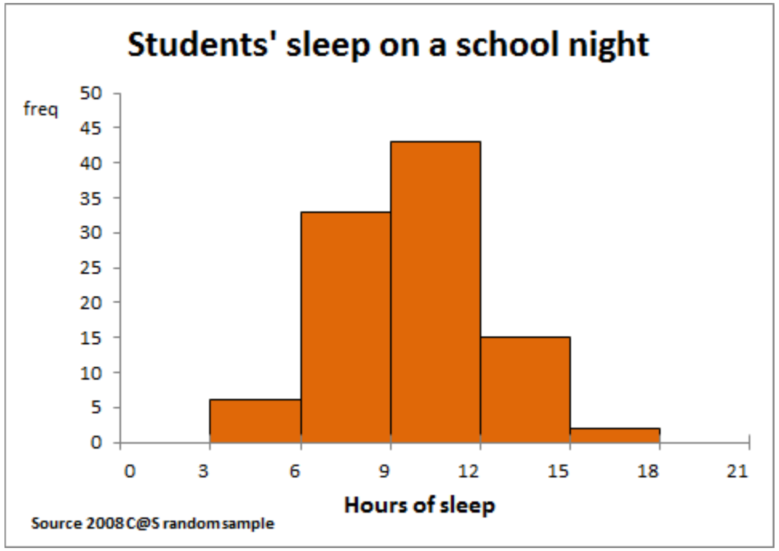
Time Series – Figure 8
Time series graphs are line graphs that display a trend or a pattern in data over time. The slope can be upward or negative. Patterns can be seasonal (over a short period), or cyclic (over a longer period). Alternately, a time series can show a random variation.
To use a times series to make predictions, you can smooth fluctuations by using a suitable smoothing process such as deseasonalising the data.

Pie Charts – Figure 9
Pie charts, often called pie graphs, sector graphs or sector charts, show how much each sector contributes to the total. Pie charts are useful when there are only a few categories as more than five categories can make them difficult to read.
It is very important to label each sector with its value to make comparison easier.

Dot Charts – Figure 10
A dot chart can convey a lot of information in a simple, uncluttered way. Each dot can represent one or many.

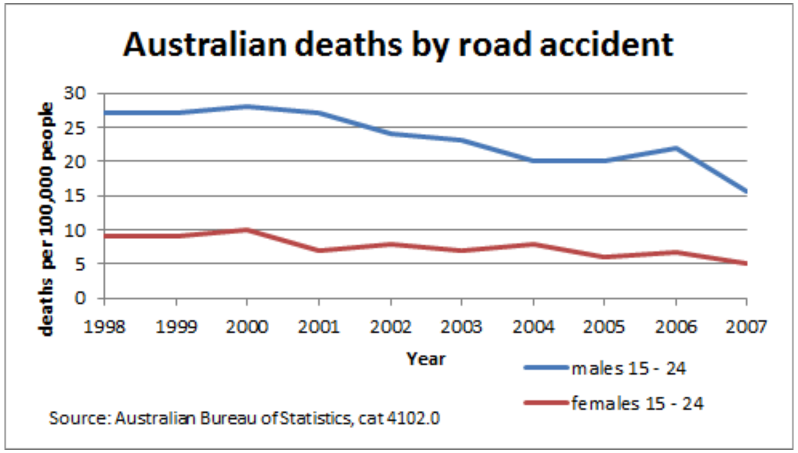
Box and Whisker Plots – Figure 11
Box and whisker plots display 5 figure summary statistics: minimum, quartile 1, median, quartile 3 and maximum for a set of numerical data.
Box and whisker plots are useful for looking at the shape of a data set. In particular, parallel box and whisker plots are used to compare two data sets and are drawn on the same number line. To help identify possible outliers, 'fences' can be drawn at 1.5 x, the IQR above Q_3 and below Q_1. For more information, see summarising Data, Measures of Spread.

Stem and Leaf Plots – Figure 12
Stem and leaf plots are an efficient way of recording numerical data because numbers in the stem apply to all values in the leaves. They are also very useful to show the shape of a distribution and, since they order data, can be used to identify median and quartiles.



Source 2008 C@S random sample

Figure 7: A histogram showing data with grouped intervals



Source: Australian Bureau of Statistics, cat 4102.0

Figure 8: A time series graph

Back to back stem and leaf plots are used to compare the distribution of two data sets.

Age Pyramids – Figure 13
Age pyramids are used to represent a population age structure. Age pyramids are a very effective way of showing change in a country's age structure over time or for comparing different countries. Estimates and projections of Australia's population from 1971 to 2050 are available on the ABS Animated Age Pyramid page.

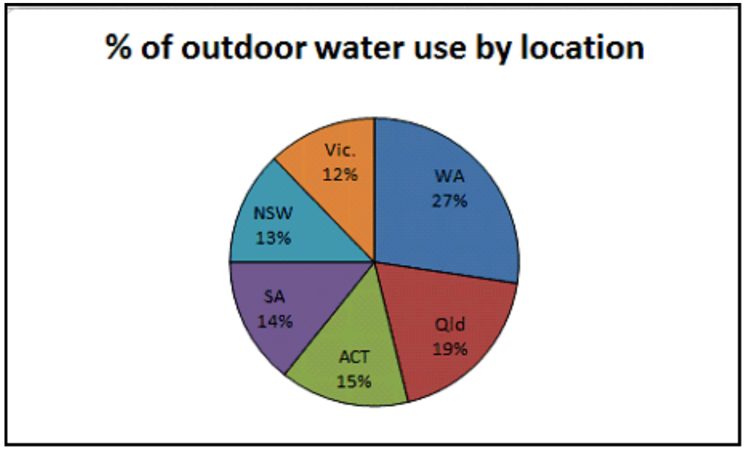


Figure 9: A pie chart

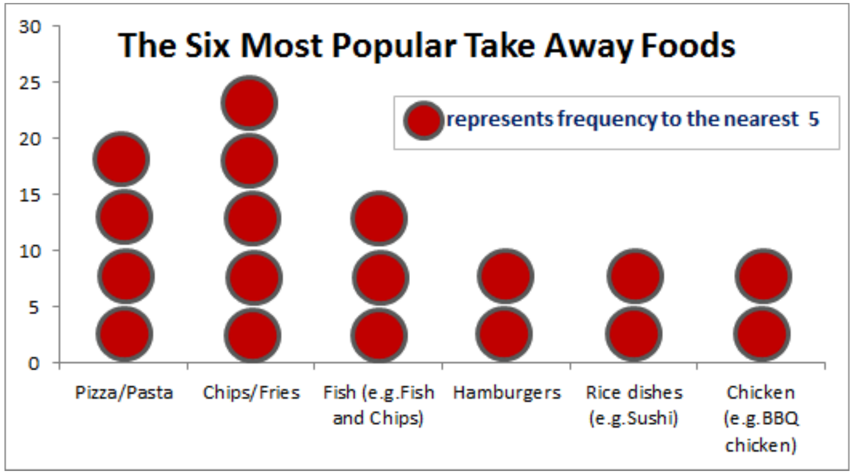


Figure 10: A dot plot with many to one correspondence

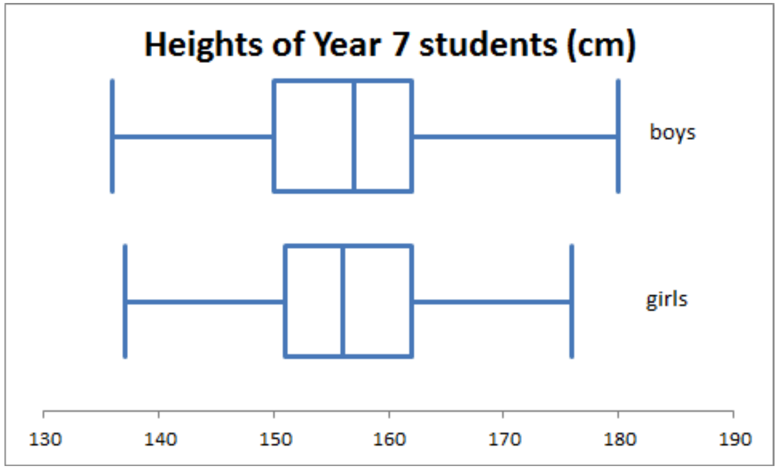
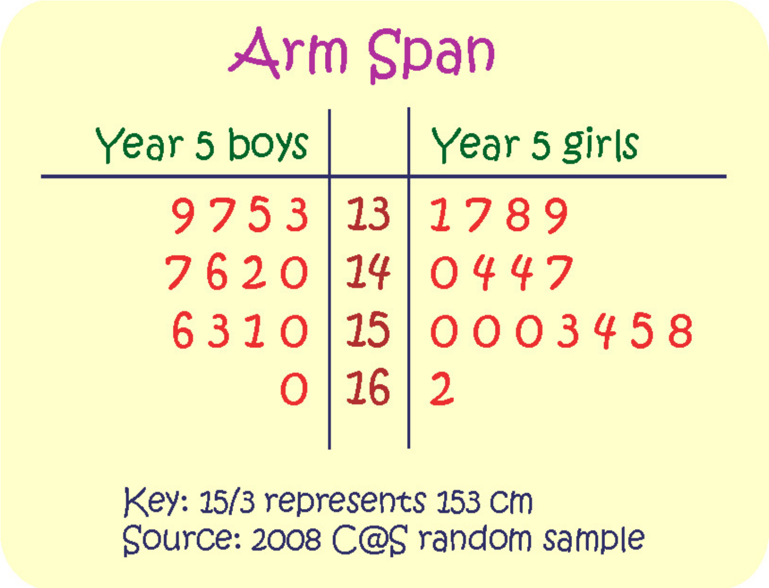


Figure 11: Parallel box and whisker plots



Arm Span

Year 5 boys		Year 5 girls
9 7 5 3	13	1 7 8 9
7 6 2 0	14	0 4 4 7
6 3 1 0	15	0 0 0 3 4 5 8
0	16	2

Key: 15/3 represents 153 cm
Source: 2008 C@S random sample

Figure 12: A back to back stem and leaf plot of arm span

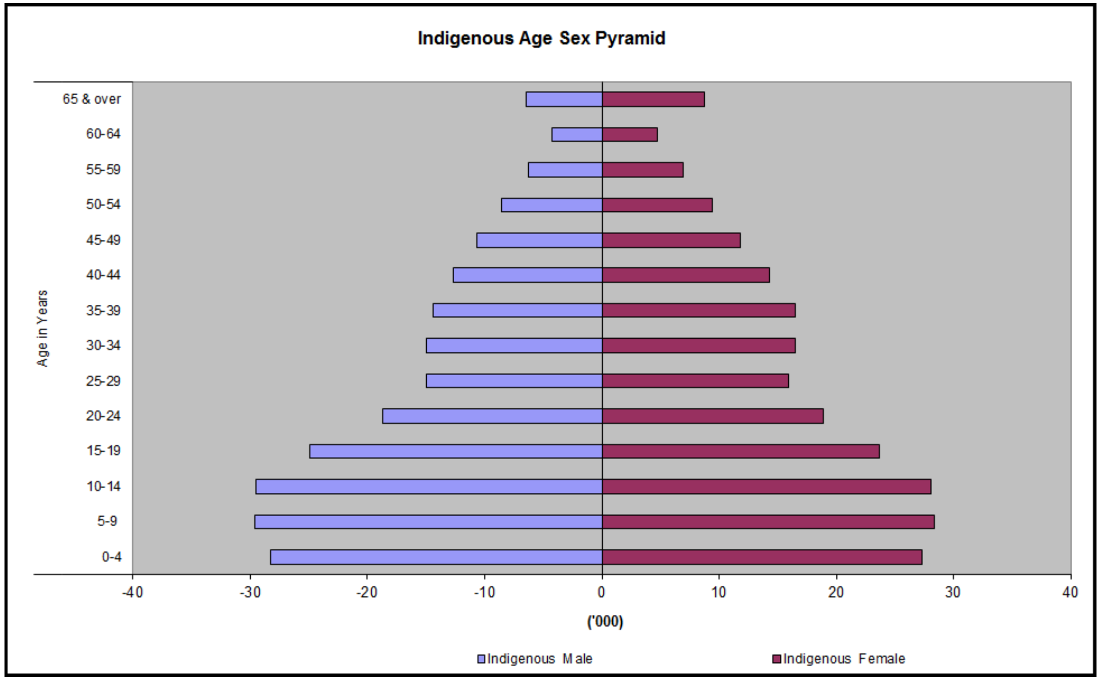


Figure 13: An age pyramid (Source: Australian Bureau of Statistics Education Services)

Step 5: Analysing the data

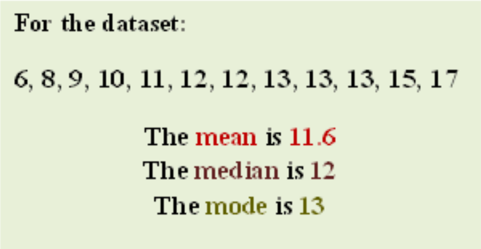
You need to decide what statistics you will use and what summary information will enable you to answer your survey question.
For example:

- Will you find the mean or median or both?
- Will you exclude extreme values?

When describing a distribution, statisticians usually comment on its centre, spread and shape.

a) Measures of centre

The centre of a set of data is important. Often you want to know which value occurs most commonly or the average of a set of values.



For the dataset:

6, 8, 9, 10, 11, 12, 12, 13, 13, 13, 15, 17

The mean is 11.6
The median is 12
The mode is 13

Figure 14: Mean median and mode of a data set

Numerical data

Mean: The arithmetic mean is calculated by finding the sum of all values in the data set and then dividing it by the number of values in the set. The mean is often called the average.

Median: The median is the middle value of a dataset when all the values are arranged from smallest to largest number. If a dataset contains an even number of values, the median is taken as the mean of the middle two. The median is the preferred measure of centre when the data is not symmetric or contains outliers.

Numerical and categorical data – Figure 14
Mode: The mode is the value that occurs most often in a data set.

b) Measures of Spread

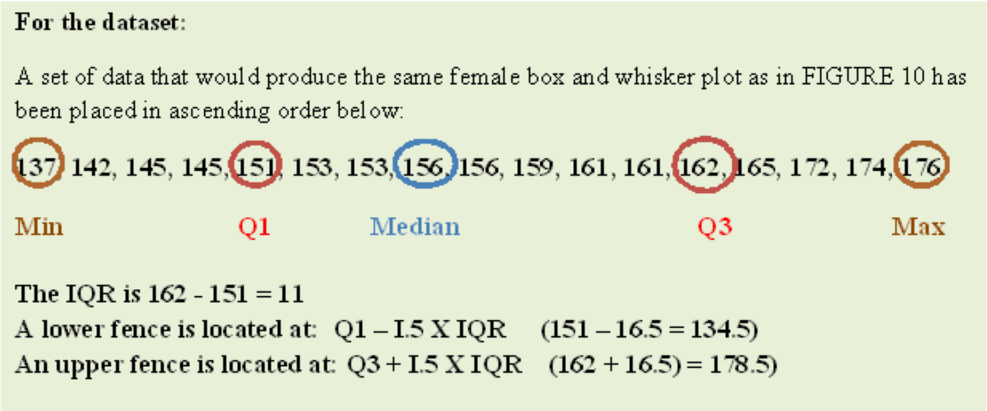
The spread of a data set, when combined with its centre, will give a more complete picture.

Range
The range is the distance from the minimum value to the maximum value in the data set.
Range = maximum – minimum

Interquartile range – Figure 15
Quartiles: As the name suggests, quartiles divide data into four equal sets.
When observations are placed in ascending order according to their value, the first or lower quartile is the value of the observation at or below which one-quarter (25%) of observations lie. The second quartile is the median at or below which half (50%) of observations lie. The third or upper quartile is the value of the observation at or below which three-quarters (75%) of the observations lie.
Another way to think about this is: the median divides the data into two equal sets: the lower quartile is the value of the middle of the lower half, and the upper quartile is the value of the middle of the upper half. The difference between upper and lower quartiles (Q_3 - Q_1) also indicates the spread of a data set. This is called the interquartile range (IQR).

Interquartile Range = Upper quartile - Lower quartile
The interquartile range spans 50% of a data set, and eliminates the influence of outliers because, in effect, the highest and lowest quartiles are removed.
Calculating the IQR will help you to identify potential outliers in the data. Any data above Q_3 +1.5 x IQR (upper fence) and below Q_1 – 1.5 x IQR (lower fence) should be investigated to decide whether or not these observations need to be excluded from the data before it is analysed further.

Outliers
A potential outlier might be a mistake or an extreme value so you need to check the original data to determine if it is to be discarded



For the dataset:

A set of data that would produce the same female box and whisker plot as in FIGURE 10 has been placed in ascending order below:

137, 142, 145, 145, 151, 153, 153, 156, 156, 159, 161, 161, 162, 165, 172, 174, 176

Min Q1 Median Q3 Max

The IQR is 162 - 151 = 11
A lower fence is located at: Q1 – 1.5 X IQR (151 – 16.5 = 134.5)
An upper fence is located at: Q3 + 1.5 X IQR (162 + 16.5) = 178.5)

Figure 15: Calculating 5 figure summary statistics

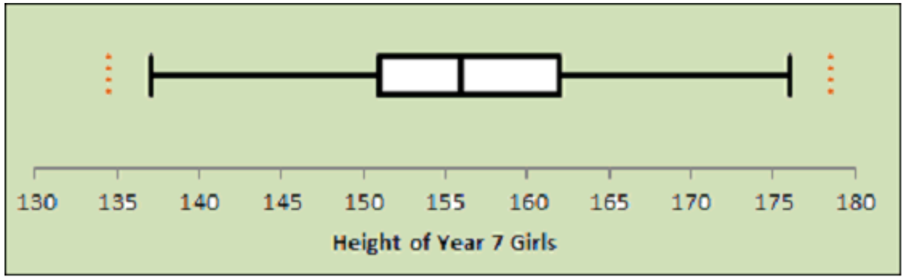
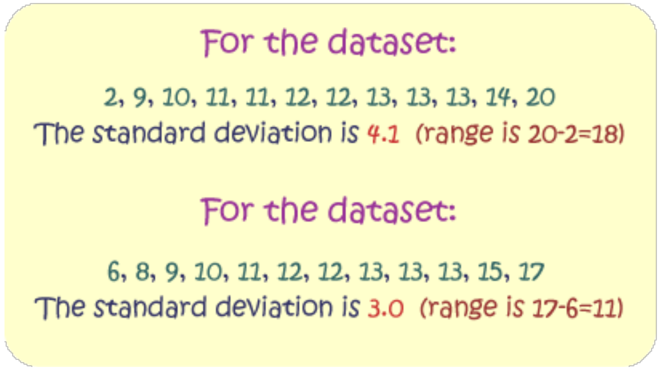


Figure 16: Box and Whisker plot with upper and lower fences



For the dataset:

2, 9, 10, 11, 11, 12, 12, 13, 13, 13, 14, 20
The standard deviation is 4.1 (range is 20-2=18)

For the dataset:

6, 8, 9, 10, 11, 12, 12, 13, 13, 13, 15, 17
The standard deviation is 3.0 (range is 17-6=11)

Figure 17: Comparing the standard deviation of two data sets

or retained. However, cleaning data by discarding extreme values might give you a false view of variations that can be found in datasets. In turn, this could result in inaccurate modelling based on the data and false conclusions.

The standard deviation – Figure 16

The standard deviation measures the average distance each value in a data set is from the mean. A data set with a higher standard deviation will be more spread out than one with a lower standard deviation. Compare the following two data sets:

c) Shape

The standard distribution – Figure 17

Data which has a standard distribution is characterised by a symmetric, single curve. Also known as the normal or bell shaped distribution.

You would expect data such as the height of Year 9 students or the length of cane toads to show a standard distribution. A standard distribution results from most of the data clustering around the mean and less data occurring further away from the mean.

Bi modal – Figure 18

Bi modal data usually comes from two distinct populations. The bar chart of Year 5 girls' and Year 10 boys' heights shows two distinct modal groups.

Skew – Figure 19

Some non-symmetric data distributions can be described as skewed.

Data which is positively skewed typically has a cluster of lower end values and a taper of higher end values. Data which is negatively skewed typically has a cluster of higher end values and a taper of lower end values.

You could expect data such as the amount of total weekly income to show a negative skew. The number of people on a higher weekly income is fewer than those on low or medium incomes. Data you could expect to show a positive skew might be the amount of hours spent on Facebook by age. It's likely that the amount of time spent on Facebook will peak in the late teens to twenties and then taper off as a person's age increases.

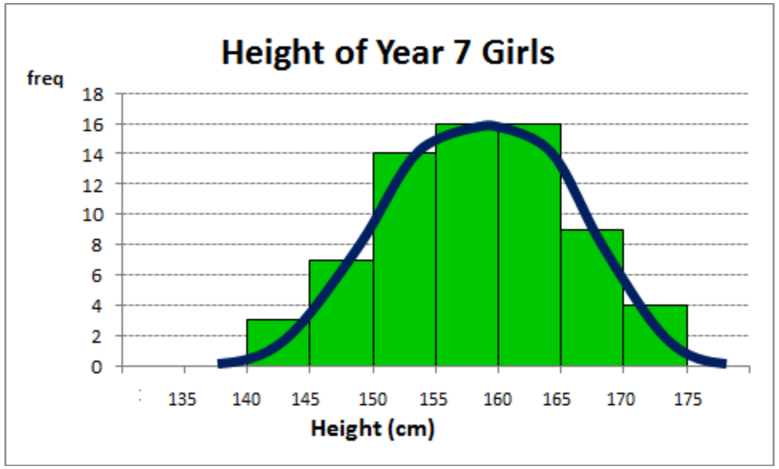


Figure 18: Standard distribution based on 2011 C@S random sample

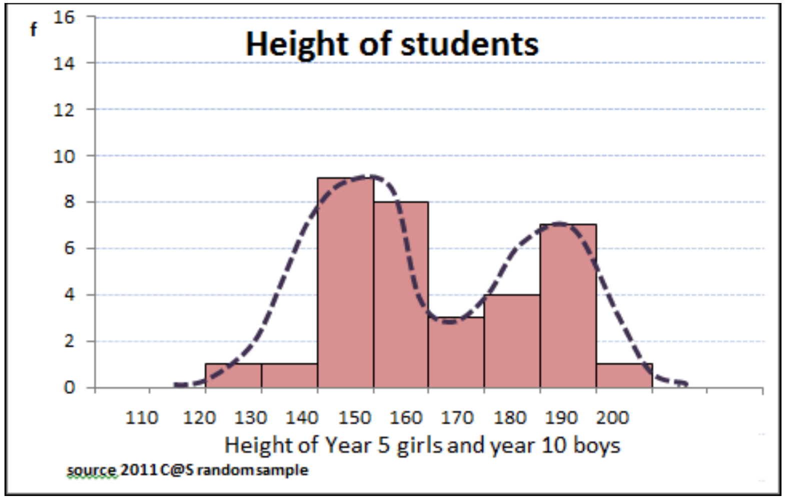
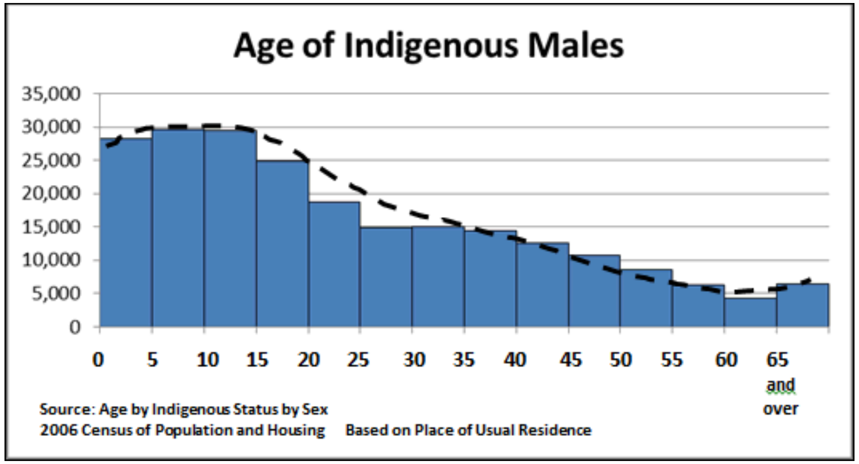


Figure 19: Bi modal graph of distribution of height


Age of Indigenous Males

Source: Age by Indigenous Status by Sex
2006 Census of Population and Housing Based on Place of Usual Residence

Figure 20: Positive skew, distribution of age of Indigenous males

Step 6: Drawing conclusions

Communicating the results of your investigation is a critical part of the survey process. Ensuring the accuracy of any interpretations and avoiding misinterpretations are crucial. Keeping in mind the purpose of the investigation and your audience will help to keep your conclusions on track and avoid including unnecessary information.

Accuracy of Data

All your calculations need to be accurate, verifiable from the data and clearly communicated using simple language.

Misinterpretation

To effectively communicate your results, you will need to be aware of avoiding any misinterpretation of the data such as using the mean when the median is more appropriate or not taking seasonal variation into account.

Stating your conclusions

With statistics, there is always a risk that the results you have do not tell the whole story. You can use the following checklist to help judge the reliability of your statistical information.

- Do your conclusions communicate the message told by the data?
- Are your conclusions based on results rather than on your opinions?
- Have you considered alternative explanations for the same results?
- Is your report set out logically including using an organisational framework such as headings and sub headings?
- Have you included the source of any information you have used or referred to?

- Have you included relevant tables and graphs?
- Are your findings clear, related to your aim and only contain necessary information?

Audience

- Have you considered your audience and used appropriate language?
- Have you anticipated questions your reader might have? For example, have you explained unusual or unexpected results? Have you justified your choice of analysis, indicated your sampling process etc?
- Can your reader check your conclusions by viewing your analysis?

Sampling Error

Finally, if you intend for your results to be applicable in other contexts, it is important to understand the limits that might apply.

The difference between an estimate based on a sample survey and the true value that would result if a census of the whole population was taken is called the sampling error. Sampling error can be measured mathematically and is influenced by the size of the sample. In general, the larger the sample size the smaller the sampling error.

The way a sample is drawn is also important. In general, a random sample will result in data that is more able to be generalised to the population.

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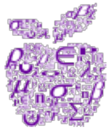
Australian Bureau of Statistics

Australian Bureau of Statistics

Education Services

Education Services home page

Teacher Statistical Literacy



Statistical Literacy

"Statistical literacy is a critical, though neglected skill that should be addressed if children are to become informed members of the community." **Gal, 2004**

One of the major objectives of the ABS Education Services unit is to promote greater understanding, knowledge and access to ABS statistics by teachers, school librarians and students. It aims to 'increase statistical literacy in the community, with a special focus on the schools sector'.

As a first step in this direction, the ABS researched and developed a set of four criteria that are considered essential for statistical literacy. For each criteria a set of competencies has been proposed against which statistical literacy can be assessed at three different levels. The ABS proposes that the following criteria be used as a framework for achieving statistical literacy and that this definition be used as a basis for consulting with the education sector.

Data awareness		
Basic (upper primary)	**Intermediate (junior secondary)**	**Advanced (middle/senior secondary)**
Read the data*: • Understand the need for data to be collected. • Recognise that there is more than one way to collect data. For example a census or survey.	Read between the data*: • Understand that various factors impact on data quality. • Be aware of how bias can be introduced. For example, response rate, question wording, sample selection etcetera. • Recognise how to limit errors. • Understand which data collection method is appropriate for a specific question. • Formulate research questions. • Make decisions about the suitability of	Read beyond the data*: • Understanding of methodological issues such as sampling technique, survey design, minimising 'noise' etcetera. • Contextual understanding.

data.

Ability to understand statistical concepts

Basic (upper primary)	Intermediate (junior secondary)	Advanced (middle/senior secondary)
Descriptive: • Recognise basic concepts including mean and range and have some understanding of their meaning. • Understand basic graphs/tables.	Explanatory: • Understand concepts such as variance. • Understanding of chance such as percentages, ratios etcetera. • Choose the correct statistic for the purpose.	Analytical/critical: • Understanding of probability such as randomness, independence, statistical significance etcetera.

Ability to analyse, interpret and evaluate statistical information

Basic (upper primary)	Intermediate (junior secondary)	Advanced (middle/senior secondary)
• Summarise basic data. • Ability to read and produce graphs and tables.	• Recognise relationships among and between variables. • Understand concept of errors. • Produce tables/graphs/maps of data appropriately. • Question the source of data and the methodology used. • Understand the importance of and take into account the metadata.	• Understand which statistical tools are appropriate to context. • Explain more complex relationships such as trends, multi factor variance etcetera. • Predict and generalise from data. • Recognise that trends exist but may not be stable. • Understand how a third variable may explain a relationship between two others. • Assess data quality. • Identify gaps in the data.

Communicate statistical information and understandings

Basic (upper primary)	Intermediate (junior secondary)	Advanced (middle/senior secondary)
• Ability to describe in words what set of data is saying. • Ability to display data in simple graphical and tabular form. • Ability to produce basic statistical summary data. For example percentages, mean etcetera.	• Ability to turn data into information. • Understanding of the statistical conventions of representing data. • Ability to organise and manage data. • Use appropriate format and medium to report data.	• Ability to apply statistical reasoning to support decisions. • Communicate the meaning of statistical terms and concepts to others. • Demonstrate adherence to ethical issues such as confidentiality.

* Friel, Susan N. et al (2002)

Further reading

Statistical Literacy Background Paper

This paper outlines the research and analysis on which the above criteria were based.

.pdf

Statistical Literacy and Scientific Investigation

This paper discusses how you can assist your student to engage with the statistical issues involved in scientific investigations, especially directed experiments.

.pdf

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This page last updated 13 August 2013

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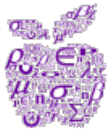
Education Services

Education Services homepage

Teacher Statistical Literacy



Concepts and definitions

Click on the triangles to open a section. The table below is a list of the concepts covered in each section.

▼Statistics

Statistics are numerical data that have been organised to serve a useful purpose. A major role of the ABS is to provide the Australian community with statistics that will help them make informed decisions. Statistical information provided by the ABS is used widely in Australia by governments, business people, researchers, members of the public, teachers and students.

Data
Data are observations or facts which, when collected, organised and evaluated, become information or knowledge.

Data item
A data item is the smallest piece of information that can be obtained from a survey or census.

Dataset
A dataset is data collected for a particular study. A dataset represents a collection of elements; and for each element, information on one or more characteristics is included.

Outliers
An outlier is an extreme value of the data. It is an observation value that is significantly different from the rest of the data. There may be more than one outlier in a set of data.

Stem	Leaf

Sometimes, outliers are significant pieces of data and should not be ignored. In other instances, they occur as a result of an error or misinformation and should be ignored. The decision to include or exclude an outlier needs to be clearly justified when discussing results.

Example:
The weights (in kilograms) of 30 students were measured and recorded in the stem and leaf plot shown in Figure 1. In this case, the stem is the whole number values and the leaves are the decimal values. The outliers are 56.3 and 67.7.

56	3
57	
58	4 4 9
59	0 0 2 3 8
60	0 2 4 5 7 8 9
61	1 2 4 4 5 6 7 9 9
62	1 2 3 7
63	
64	
65	7

Fig 1 Stem and leaf plot

Variables

A variable is any measurable characteristic or attribute that can have different values for different subjects. Height, age, amount of income, country of birth, grades obtained at school and type of housing are examples of variables.

Observation
An observation is a single piece of data about a variable

Independent variable
An independent variable is the variable whose values are independent of changes in the values of other variables. It its the variable deliberately controlled or changed to assess changes in the dependent variable.

Dependent variable
A dependent variable depends on the independent variable.

Categorical variables
Nominal variable
A nominal variable describes a name or category. For example, for the variable 'method of travel to school' all its values are words such as bus, walk, car and tram. Nominal variables are often referred to as categorical variables.

Ordinal variable
An ordinal variable is a number that represents a category. For example, postcodes and school year levels.

Numerical variables
A numerical variable is one that describes a numerically measured value. Numerical variables can be either discrete or continuous.

Continuous variable
A continuous variable is a numeric variable that can take any value within a certain range. For example, distance, age and temperature are continuous variables.

Discrete variable
A discrete variable can only take a finite number of values within a certain range. An example of a discrete variable is the number of children in a family – a family can have 0,1,2 or 3 children but not 2.5.

Class interval
A class interval is a group of data values for a variable. The intervals are generally the same size – for example, 4-6, 7-9 and 10-12. However, the intervals may have different sizes such as 4-6, 7-9 and 10-14. The boundaries of class intervals must not overlap so that each observation can be allocated to only one interval.

▼Sampling

Census
A census is a collection of information from all units in the population. The Census of Population and Housing is a statistical collection that aims to accurately measure the number of persons in Australia on Census night, their key characteristics and the dwellings in which they live.

Estimate
An estimate is an inference for the target population using information obtained from a sample of the population.

Sample
A part of a population selected for the purpose of studying certain characteristics of an entire population of interest. A sample is used to represent the population. You can often get a response form a sample where it would not be possible to get a response form every member of the population.

Sample size
The sample size is the number of units, including persons, households, businesses and schools etc, being surveyed. In general, the larger the sample size, the smaller the sampling error.

Random sample
In a random sample, all units in the target population have an equal

chance of selection.

Simple random sample
All members of the sample are chosen at random and have the same chance of being in the sample.
A Tattslotto draw is a good example of simple random sampling. A sample of six numbers is randomly generated from a population of 45 with each number having an equal chance of being selected.

Systematic random sample
The first member of the sample is chosen at random then the other members of the sample are taken at intervals.

Stratified random sample
Relevant subgroups form within the population are identified and random samples are selected from within each strata.
For example, a school has 24 Year 7 students. Eight of the students are 11 years old, twelve are 12 years old and four are 13 years old. The strata are the ages of students.
To take a stratified sample, select one quarter of the students in each age group – for instance, two students form the 11-year-olds, three students from the 12-year-olds and ones student who is 13 years old.
In this example, the strata are proportionally represented; however, this will not always be the case. The important thing to remember is to take a random sample from each strata.

Non-random sample
In a non-random sample, the chance of a member of the population being in the sample is unknown. The accuracy of the sample in representing the population is unknown.

Quota sample
This is a type of stratified sampling in which selection within the strata is non-random. Quota sampling requires setting a number of participants to include in a survey – usually a proportion of the population.
Take the example of Year 7 students from the stratified random sample above who are in strata of age groups. Unlike stratified random sampling where participants are selected at random, participants in a quota sample are selected to fill the quotas.
For instance, the first 15 twelve-year-old Year 7 students to arrive at school on any given day may be selected. However, this sample may not be representative of all twelve-year-olds in Year 7.

Convenience sample
In a convenience sample, participants are selected by how easy it is to reach them.

For example, the first ten students to walk through the front gates of the school is an easy sample to take. Convenience sampling does not produce a representative sample of the population because people or things that can be reached easily and conveniently are likely to be different to those that are harder to reach.

Volunteer sample

This is where participants volunteer to be part of the survey.
Phone-in sampling is a common method of volunteer sampling used by television and radio stations to measure public opinion. People are asked to telephone or SMS their vote on a particular issue by a certain time. There is no control over how many people vote.
There are two main problems with this type of sampling. Firstly, there is no limit to the number of times a person can vote, and secondly, those not interested in voting will not be included in the sample. People who don't call in may have different views to the people who are calling in.
Additionally, only those watching television or listening to the radio know that there is a survey taking place.
As such, volunteer sampling is unlikely to produce a sample that accurately represents the population.

Sampling error

Sampling error is the difference between an estimate derived from a sample survey and the true value that would result if a census of the whole population was taken.

Non-sampling error

Non-sampling errors are not caused by sampling methodology. They can be made by participants and interviewers when the questionnaire is being filled in. or they can happen when the questionnaire is being processed.

▼Frequency and distribution

The frequency (f) of a particular observation is the number of times the observation occurs in that data.

Cumulative frequency

Cumulative frequency is the total of a frequency and all frequencies below it in a frequency distribution. It is the running total of frequencies.

Relative frequency

Relative frequency is another term for proportion. It is the number of times a particular observations occurs divided by the total number of observations.

Distribution
The distribution of a variable is the pattern of values of the observations.

Graphs and displays

Graph
A graph is a diagram representing a system of connections or interrelations among two or more variables by a number of distinctive dots, lines, bars, etc.

Chart
A chart is a visual representation of data. Bar, line, pie and other types of charts are examples of charts.

Box and whisker plots (often called ‘box plots’) can be used to show the interquartile range. Figure 1 shows a box and whisker plot of student ages.
Notice that a scale is drawn underneath. Box plots can be drawn horizontally or vertically.

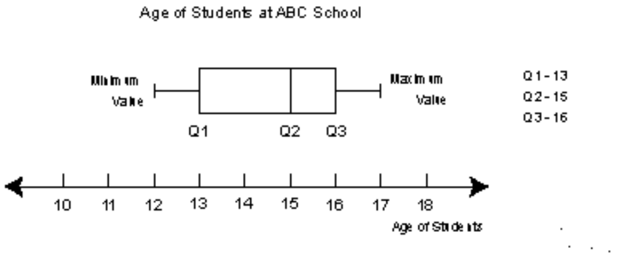


Fig 1 Box and whisker plot

Frequency distribution tables can be used for nominal and numeric variables.

Example:
Twenty people were asked how many cars were registered to their households. The results were recorded as follows: 1, 2, 1, 0, 3, 4, 0, 1, 1, 1, 2, 2, 3, 2, 3, 2, 1, 4, 0, 0. This data can be presented in a frequency distribution table – see Figure 2.

Number of cars (x)	Tally	Frequency (f)
0	| | | |	4
1	~~||||~~ |	6
2	~~||||~~	5
3	| | |	3
4	| |	2

Fig 2 Frequency distribution table

Stem and leaf plots are a convenient way to organise data. Each observation value is considered to consist of two parts - a stem and a leaf.

- the stem is the first digit or digits
- the leaf is the final digit

Example:
The number of books ten students read in one year were as follows: 12, 23, 19, 6, 10, 7, 15, 25, 21, 12.
In ascending order, these are: 6, 7, 10, 12, 12, 15, 19, 21, 23, 25.
Figure 3 is a stem and leaf plot of this data.

Stem	Leaf
0	6 7
1	0 2 2 5 9

2	1 3 5

Fig 3 Stem and leaf plot

In the stem and leaf plot (fig 3):

- the stem '0' represents the class interval 0-9
- the stem '1' represents the class interval 10-19
- the stem '2' represents the class interval 20-29.

If there are a large number of observations for each stem, the stem can be split in two. For example the interval 0-9 could be split into intervals 0-4 and 5-9. The stem would then be written as 0(0) and 0(5).

Time series

A time series is a collection of observations of well-defined data items obtained through repeated measurements over time. For example, measuring the value of retail sales each month of the year would comprise a time series.

Trend

The ABS defines a trend as the *long term* movement in a time series without calendar related and irregular effects, and is a reflection of the underlying change in that measure. It is the result of influences such as population growth, price inflation and general economic changes.

Summary statistics

Mean

The mean of a numeric variable is calculated by adding together the values of all observations in a dataset and then dividing by the number of observations in the set. It is often referred to as the average. Thus:

Mean = sum of all the observations ÷ number of observations

For example, find the mean of these numbers 5, 3, 4, 5, 7, 6.

Mean= (5 + 3 + 4 + 5 + 7 + 6) ÷ 6
= 30 ÷ 6
= 5

Notice that the value of every member of the dataset is used to calculate the mean.

Median

The median is the middle value of a set of odd numbered data, or the mean of the middle two in an even numbered set *after the data have* *been placed in ascending order*.

For example, dataset A contains 3, 7, 1, 9, 2, 5, 9. Rearranged in ascending order it becomes: 1, 2, 3, 5, 7, 9, 9. The middle number is 5 so, the median is 5.
Dataset B contains 1, 3, 4, 5, 10, 12, 13, and also has a median of 5 although the values of the data vary considerably.

The position of the median can also be found by using the formula (n + 1) ÷ 2 , where *n* is the number of values in a set of ordered data.

For dataset A: n = 7

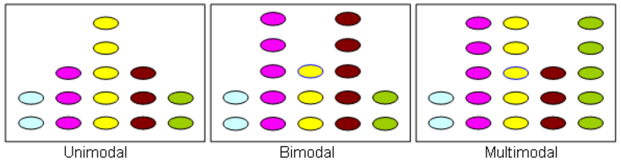
So the position of the median = (7 + 1) ÷ 2
= 8 ÷ 2
= 4

The median is the *fourth* number which has a value of 5.

The above example is for an odd number of observation, i.e. n = 7. However, an extra step is necessary when the number of observations is even.
For example, if n = 8 then
the position of the median = (8 + 1) ÷ 2
= 9 ÷ 2
= 4.5
This means that the position of the median lies between the fourth and fifth observations. To find the value of the median, add together the fourth and fifth observations and divide by two. For example, if the dataset is: 1, 1, 4, 4, 8, 9, 9, 10 then the median is, (4 + 8) / 2 = 6.

The median value is decided by its location in the ordered dataset and not because of its actual value. Notice that the values of the other members of the dataset are not taken into consideration, only their position. There are as many values above the median as there are below.

The median is usually calculated for numeric variables but may also be calculated for an ordinal nominal variable.


Unimodal Bimodal Multimodal

Mode
The mode is the most frequently observed value in a dataset. Mode is the only measure you can use when the data is categorical and has no order – for example, place of birth, favourite colour and hair colour. As the dataset is not numbers, you cannot add and divide, so

you cannot find a mean. The dataset cannot be sorted from smallest to largest so you cannot find the middle value and median. The mode does not necessarily give an indication of a dataset's centre. A set of data can have more than one mode (see Figure 1).

Fig 1 Unimodal, bimodal and multimodal

For example, a group friends in Year 10 have the following hair colours: red, brown, blonde, black, blonde, black, brown, brown, black, blonde, brown, brown, black.

HAIR COLOUR	FREQUENCY
Red 1	1
Brown 5	5
Black 4	4
Blonde 3	3

The most common hair colour is brown so the mode is brown.

Range

The range is the actual spread of data including any outliers. It is the difference between the highest and lowest observation.

Range = maximum value – minimum value

For the following dataset of students' ages: 17, 15, 14, 16, 14, 15, 16, 12, 17, 13, 12, 17, 13, 16, 15

Maximum value = 17
Minimum value = 12

Range = maximum value – minimum value
= 17 – 12
= 5

The range of the student's ages is 5 years.

Quartiles

Quartiles divide data into four equal groups. Using the example of 15 students above, we have the following ordered dataset: 12, 12, 13, 13, 14, 14, 15, 15, 15, 16, 16, 16, 17, 17, 17. We can divide this set into four equal sized groups with each group containing one quarter of the data:

- The first quartile (Q1) is the value that 25% of the data is below.
- The second quartile (Q2) is the value that 50% of the data is below. This is the same as the median.
- The third quartile (Q3) is the value that 75% of the data is below.

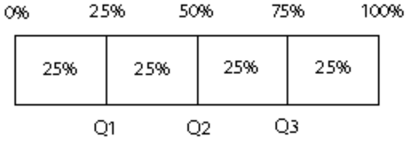


Fig 2 Quartiles

In the example: Q1 = 13
Q2 = 15
Q3 = 16

Interquartile range

The interquartile range refers to the middle 50% of data. Another way to put it is the interquartile range is the difference between the upper (75%) and lower (25%). The interquartile range is an indicator of the spread of the data. It eliminates the influence of outliers since the highest and lowest quarters are removed. The interquartile range is found by subtracting Q1 from Q3.

Five number summary (quartiles)

This is a useful way to summarise data. It consists of:

- the lowest value
- the highest value
- the first quartile (Q1)
- the third quartile (Q3)
- the second quartile (Q2).

The range can be found from the difference between the highest and lowest value. The median is the second quartile (Q2) and the interquartile range is the difference between the third and first quartiles (Q3 – Q1).

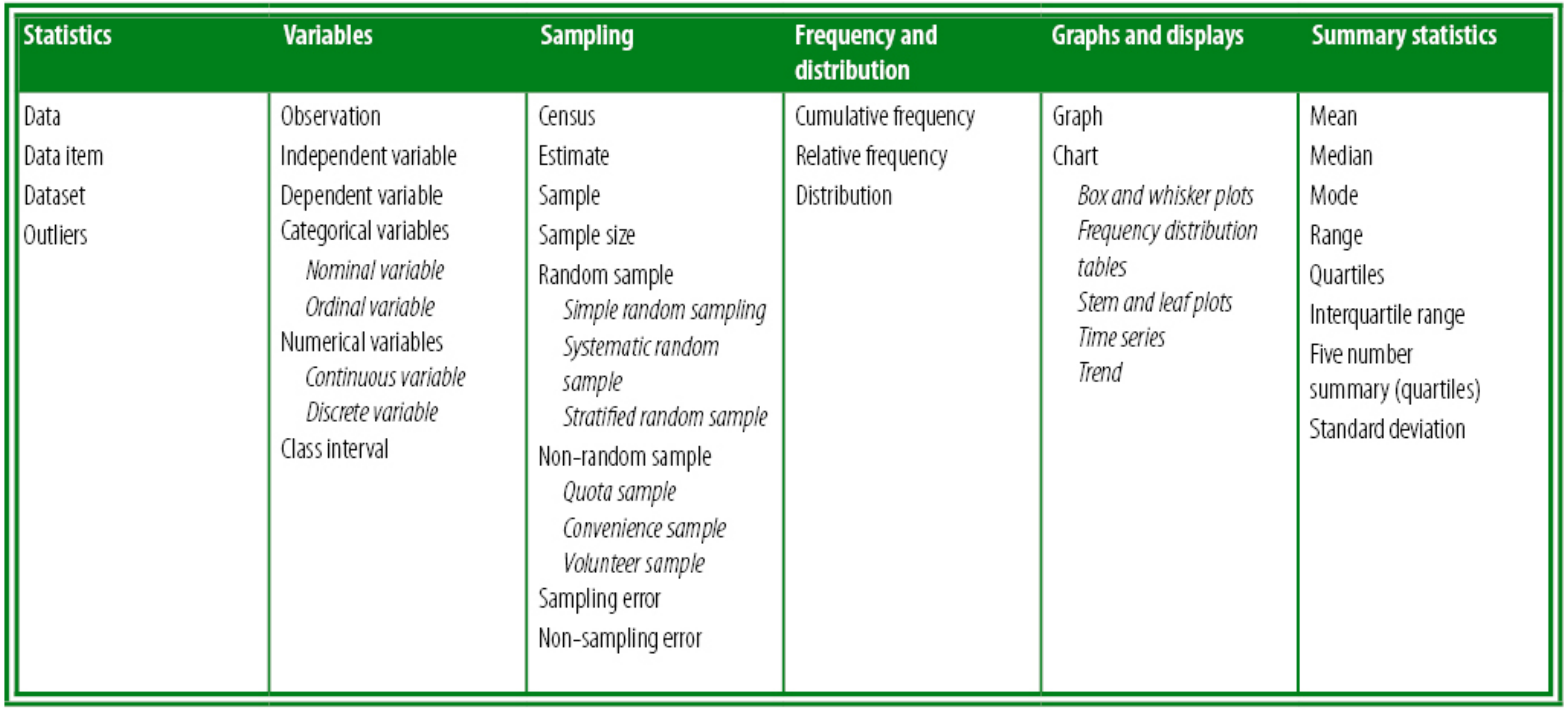
Standard deviation

Standard deviation (s) is the measure of spread most commonly used when the mean is the measure of centre. Standard deviation is most useful for symmetric distributions with no outliers.
The standard deviation for a discrete variable made up of *n* observations is the positive square root of the variance as show in Figure 3.

$$s = \sqrt{\frac{\Sigma (x - \bar{x})^2}{n}}$$

where $\sum$ stands for 'the sum of'
x is the value of each observation
$\bar{x}$ is the mean of the data, and
n is the number of observations

Fig 3 Standard deviation formula



Statistics	Variables	Sampling	Frequency and distribution	Graphs and displays	Summary statistics
Data Data item Dataset Outliers	Observation Independent variable Dependent variable Categorical variables *Nominal variable* *Ordinal variable* Numerical variables *Continuous variable* *Discrete variable* Class interval	Census Estimate Sample Sample size Random sample *Simple random sampling* *Systematic random sample* *Stratified random sample* Non-random sample *Quota sample* *Convenience sample* *Volunteer sample* Sampling error Non-sampling error	Cumulative frequency Relative frequency Distribution	Graph Chart *Box and whisker plots* *Frequency distribution tables* *Stem and leaf plots* *Time series* *Trend*	Mean Median Mode Range Quartiles Interquartile range Five number summary (quartiles) Standard deviation

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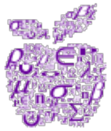
Teacher Statistical Literacy



ABS Video Tutorials

These video tutorials will familiarise you with a range of ABS products that are useful in the classroom. You can view video transcripts by clicking on the triangle labelled 'Video Transcripts' below the video description.

On this page:

- General CensusAtSchool
- Tailoring the Data to Suit Your Needs
- Working with Data in Microsoft Excel
- Using ABS Census Data Products
- Key ABS Products for Teachers

Link	Description	Duration (mins)
General CensusAtSchool		
Introducing CensusAtSchool	Former Australian Statistician, Dennis Trewin, talks about the aims of CensusAtSchool and the structure of the project.	02:12
		Back to top
Tailoring the Data to Suit Your Needs		
Making Multiple Worksheets in a Workbook	Insert a new sheet into an Excel workbook.	00:54

Simplify the Data	Copy and paste data from an existing worksheet into a new worksheet.	04:12

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Working with Data in Microsoft Excel

Create a Summary Table	Format a table used to summarise data. ▸ Video Transcript	01:55
COUNTIF Function	Use COUNTIF to tally the frequency of a variable. ▸ Video Transcript	02:20
Draw a Graph	Insert and format a graph using categorical data. ▸ Video Transcript	03:38
Using the Sort Function	Sort data according to topic and value. ▸ Video Transcript	01:30
Mean and Median Function	Find the mean and median of numerical data. ▸ Video Transcript	04:31
Using CensusAtSchool in the Classroom	Construct a scatterplot, remove outliers, add a trend line and remove outliers; and identify possible outliers using conditional formatting. Link to CaSMa12 ▸ Video Transcript	09:14

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Using ABS Census Data Products

Introductory Video for Census Topics	Introduction to the Census topics as well as what is *not* included in the Census product videos.	00:33

	Video Transcript	
Census Product - QuickStats	This video demonstrates how you can search for key summary Census data using QuickStats. Video Transcript	03:34
Census Product - Community Profiles	This video demonstrates how to find Census data for your area of interest using Community Profiles. Video Transcript	02:45
Census Product - Census Tables	This video demonstrates how to find detailed Census data for your area of interest and how to download a Census table. Video Transcript	04:56

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Key ABS Products for Teachers

Australian Social Trends	A description of some of the main features of the Australian Social Trends publication and where to find it on the ABS website. Video Transcript	03:09
Measures of Australia's Progress	How to find the Measures of Australia's Progress publication and a brief demonstration of key features. Video Transcript	03:02
Yearbook Australia	How to find the Yearbook Australia series and a brief demonstration of key features. Video Transcript	01:39
Consumer Price Index	How to find Consumer Price Index (CPI) on the website and a demonstration of how to access CPI education resources from the ABS Education pages.	02:41

	Video Transcript	
Key National Indicators	How to find Key National Indicators on the ABS website and a demonstration of how to access source publications.	02:25
	Video Transcript	
National Accounts	A demonstration of the National Accounts themes page and how to find quarterly and annual GDP data.	02:46
	Video Transcript	

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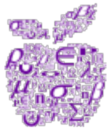
Australian Bureau of Statistics

Education Services

Education Services home page

Explore Data & Stats



Economy Datasets

These economic datasets have been designed to increase students' understanding of ABS data & statistics in general, while giving them a fascinating insight into the lives of Australians. For instance, Dataset Eco1 shows the change in the Consumer Price Index (CPI), which reflects increases or decreases in the costs of goods and services in Australia. This in turn, is often used to help measure inflation.

The data used in the sets have been extracted from a wide range of ABS publications and adapted to make them easy to use, print and graph. Data within the sets has been updated with the latest data available, at the time of publication. If you want other data, you can access all online ABS publications through the Statistics page on the ABS website.

Tables that have this icon have interactive graphs that you can view. Simply click on the icon next to table to go to the interactive graph.

Tables that have this icon have learning tasks that you can view and download. Simply click on the icon next to table to go to the learning task.

Download dataset Excel file here:
(all datasets) .xls

Datasets

	Title	Intervals	ESU next updating
Eco1	Consumer Price Index (CPI), by Group, Percentage change from previous quarter, Sep 2005 to Jun 2013	Quarterly	Early 2014

Eco2	Consumer Price Index (CPI), by Capital city, Percentage change from previous quarter, Jun 2007 to Jun 2013	Quarterly	Early 2014
Eco3	Labour Force status, Jan 2007 to Aug 2013	Monthly	Early 2014
Eco4	Unemployment by Sex, Sep 1994 to Jun 2013	Quarterly	Early 2014
Eco5	Annual Gross Domestic Product (GDP), Measures over time, 2002-03 to 2012-13	Financial Year	Mid 2014
Eco6	Australian goods exporters, by Country of destination, 2010-11	n/a	Mid 2014
Eco7	Industry statistics, by Division, 2011-12	n/a	Mid 2014
Eco8	Mean disposable household income per week, by Quintile, 1994-95 to 2009-10	Financial year	Early 2014
Eco9	Personal finance commitments, fixed loans, 2005-06 to 2010-11	Financial Year	None

Interactive Graphs

Title	Description
House Price Index - Eight Capital Cities 2002 to 2012	Find out how your state compares using House Price Index data in Google Motion Charts.
Consumer Price Index Inflation Calculator	Find out how much purchasing power has changed over time.

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View datasets on the web below:

Eco1: Consumer Price Index (CPI), by Group, Percentage change from previous quarter(a), Sep 2005 to Jun 2013 (quarterly)

	CPI Group											
Period	Food and non-alcoholic beverages	Alcohol and tobacco	Clothing and footwear	Housing	Furnishings, household equipment and services	Health	Transport	Communication	Recreation and culture	Education	Insurance and financial services	All groups(b)
Sep-2005	0.8	1.0	0.1	1.4	0.3	-1.1	3.3	-0.7	1.3	0.1	0.1	1.0

Dec-2005	1.9	0.5	-0.1	0.7	0.6	-1.1	-0.5	-0.7	0.0	0.0	1.5	0.5
Mar-2006	1.4	1.2	-2.6	0.7	-0.3	4.4	1.3	0.4	0.6	5.7	-0.6	0.8
Jun-2006	4.1	0.9	0.9	0.8	0.7	2.3	3.4	0.1	-0.3	0.0	1.2	1.7
Sep-2006	2.3	0.5	0.1	1.2	1.4	-0.8	0.4	0.6	0.7	-0.9	0.3	0.9
Dec-2006	0.5	0.8	-0.5	0.5	0.1	-0.8	-3.8	0.4	1.3	0.1	0.5	-0.1
Mar-2007	-2.4	0.8	-0.3	1.0	-0.8	3.6	0.6	0.2	-0.7	4.9	-0.2	0.0
Jun-2007	1.7	0.9	1.4	0.8	1.5	2.1	3.1	0.2	-0.4	0.1	0.9	1.3
Sep-2007	1.9	0.5	0.3	1.9	-2.4	-0.6	-0.7	0.0	1.3	-0.9	2.0	0.7
Dec-2007	-0.1	1.3	0.2	1.1	0.8	-1.0	2.4	0.0	0.9	0.0	2.1	0.9
Mar-2008	2.1	1.1	-2.4	1.8	-0.7	3.9	1.9	0.0	-0.4	5.1	1.6	1.3
Jun-2008	-0.1	1.8	3.0	1.1	1.7	2.5	3.0	0.0	-0.2	0.1	3.7	1.4
Sep-2008	1.4	1.5	-0.7	2.5	-0.8	-0.2	1.0	0.2	1.3	-0.5	1.8	1.2
Dec-2008	2.1	1.3	0.4	0.8	0.3	-1.3	-6.9	0.4	0.6	0.0	-0.3	-0.3
Mar-2009	2.2	1.0	-0.5	0.9	0.8	4.3	-1.5	0.4	-1.2	5.5	-6.3	0.1
Jun-2009	-0.9	0.9	2.1	0.8	2.2	2.2	1.6	0.2	0.0	0.0	-1.6	0.4
Sep-2009	-0.8	0.7	0.3	3.0	0.6	-1.0	1.9	0.0	0.7	0.1	0.9	1.0
Dec-2009	1.5	0.6	0.2	0.8	0.0	-0.9	-0.8	0.0	1.5	0.0	0.8	0.5
Mar-2010	1.0	1.3	-4.3	1.4	-1.3	4.7	1.3	-0.1	-1.0	5.5	2.1	1.0
Jun-2010	-0.3	5.9	0.0	0.6	0.9	2.2	0.7	-0.1	-1.8	0.1	0.1	0.6
Sep-2010	-0.5	3.0	1.3	2.1	0.8	-0.7	-0.6	-0.2	0.7	0.1	0.5	0.7
Dec-2010	2.2	0.7	-1.8	0.6	-0.6	-1.3	0.3	0.0	0.2	0.0	-0.4	0.4
Mar-2011	3.0	1.1	-0.7	1.4	-1.6	3.9	2.6	0.1	-0.6	5.7	2.5	1.4
Jun-2011	1.4	0.6	2.4	0.4	1.4	2.1	1.2	0.5	-0.6	0.1	1.6	0.9
Sep-2011	-0.3	0.5	1.5	1.7	0.3	-1.0	0.1	-0.1	0.9	0.0	0.7	0.6
Dec-2011	-1.5	0.9	-0.6	0.5	0.1	-1.3	0.0	1.1	0.8	0.0	0.7	0.0
Mar-2012	-2.1	1.4	-1.8	0.6	-1.1	4.5	1.1	0.1	-2.0	6.0	0.9	0.1
Jun-2012	0.6	1.0	1.4	0.4	1.5	1.5	1.0	-0.3	-1.2	0.0	0.5	0.5
Sep-2012	1.9	0.9	0.2	3.2	1.0	2.4	-0.8	0.5	0.9	0.1	0.2	1.4
Dec-2012	-0.1	0.2	0.8	0.2	-0.6	-0.9	0.7	1.3	0.6	0.0	1.5	0.2
Mar-2013	-0.8	1.6	-3.9	1.2	-1.3	3.0	0.5	0.0	-0.8	5.7	0.7	0.4
Jun-2013	0.1	1.3	2.7	0.6	1.0	1.9	-0.9	0.4	-0.8	-0.1	0.3	0.4

Notes:
(a) Change is from previous quarter, as opposed to change from the same quarter in the previous year.
(b) Highest level of the CPI, containing all the groups, subgroups and expenditure classes.

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Eco2: Consumer Price Index (CPI)(a), by Capital city, Percentage change from previous quarter(b), Jun 2007 to Jun 2013 (quarterly)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
Sep-2007	0.5	0.8	0.9	0.8	0.7	0.2	1.1	0.8	0.7
Dec-2007	0.9	1.0	1.0	1.0	0.8	0.9	0.3	0.9	0.9
Mar-2008	1.3	1.3	1.4	1.3	1.3	1.2	0.9	1.5	1.3
Jun-2008	1.6	1.2	1.7	1.3	1.7	1.1	1.5	1.2	1.4
Sep-2008	1.1	1.2	1.4	1.3	1.0	1.1	1.8	1.5	1.2
Dec-2008	-0.3	-0.6	-0.2	-0.3	-0.3	-0.2	-0.4	-0.4	-0.3
Mar-2009	0.1	0.3	0.2	0.0	-0.1	0.2	0.1	0.3	0.1
Jun-2009	0.4	0.3	0.5	0.5	0.9	0.5	1.1	0.6	0.4
Sep-2009	1.1	0.5	1.4	1.1	0.8	1.2	1.9	0.9	1.0
Dec-2009	0.5	0.6	0.3	0.4	0.5	0.6	-0.1	0.4	0.5
Mar-2010	0.8	1.3	0.7	0.5	1.2	0.7	0.5	0.6	1.0
Jun-2010	0.4	0.6	0.7	0.7	0.9	0.4	0.8	0.3	0.6
Sep-2010	0.7	0.5	1.0	0.9	0.4	1.0	1.0	0.7	0.7
Dec-2010	0.4	0.6	0.5	0.3	0.1	0.1	-0.1	0.4	0.4
Mar-2011	1.6	1.7	1.2	1.7	1.1	1.3	1.1	1.4	1.4
Jun-2011	1.0	0.7	1.0	0.9	1.3	0.9	1.0	1.1	0.9
Sep-2011	0.7	0.6	0.3	1.0	0.2	0.8	0.7	0.6	0.6
Dec-2011	-0.1	0.1	-0.2	0.0	0.2	0.1	-0.4	0.3	0.0
Mar-2012	0.1	0.0	0.2	-0.1	0.2	0.3	0.4	-0.4	0.1
Jun-2012	0.6	0.5	0.6	0.3	0.5	-0.4	0.8	0.6	0.5
Sep-2012	1.7	1.2	1.1	1.5	1.1	0.7	1.3	1.1	1.4
Dec-2012	0.1	0.4	0.3	0.4	0.3	0.4	0.0	0.4	0.2
Mar-2013	0.4	0.4	0.1	0.0	0.5	0.3	1.7	0.1	0.4
Jun-2013	0.4	0.2	0.5	0.2	0.6	0.4	0.9	0.6	0.4

Notes:
(a) Refers to 'All Groups CPI', the highest level of the CPI, containing all the groups, subgroups and expenditure classes.
(b) Change is from previous the quarter, as opposed to change from the same quarter in the previous year.

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Eco3: Labour Force status, Jan 2007 to Aug 2013 (monthly)

Period	Employed - full-time ('000)	Employed - part-time ('000)	Employed - total ('000)	Unemployed - looking for full-time work ('000)	Unemployed - looking for part-time work ('000)	Unemployed - total ('000)	Labour Force ('000)	Unemployment Rate - Persons (%)	Participation Rate - Persons (%)
Jan-2007	7,462.2	2,962.4	10,424.7	351.4	145.4	496.8	10,921.5	4.5	65.0
Feb-2007	7,490.3	2,963.0	10,453.3	346.2	146.9	493.2	10,946.4	4.5	65.1
Mar-2007	7,518.7	2,964.6	10,483.3	340.6	147.7	488.3	10,971.6	4.5	65.1
Apr-2007	7,543.2	2,970.4	10,513.6	335.1	147.5	482.5	10,996.1	4.4	65.1
May-2007	7,562.5	2,979.8	10,542.4	330.1	146.8	476.9	11,019.3	4.3	65.1
Jun-2007	7,579.2	2,990.6	10,569.9	326.2	147.5	473.6	11,043.5	4.3	65.2
Jul-2007	7,595.2	3,000.1	10,595.2	324.1	149.6	473.8	11,069.0	4.3	65.2
Aug-2007	7,611.1	3,007.5	10,618.7	323.8	153.4	477.2	11,095.9	4.3	65.3
Sep-2007	7,628.7	3,013.9	10,642.6	324.0	157.8	481.7	11,124.3	4.3	65.4
Oct-2007	7,648.5	3,019.9	10,668.5	322.9	160.9	483.8	11,152.3	4.3	65.4
Nov-2007	7,669.9	3,028.1	10,698.0	320.9	161.3	482.2	11,180.1	4.3	65.5
Dec-2007	7,690.7	3,039.3	10,730.0	318.7	158.8	477.5	11,207.5	4.3	65.5
Jan-2008	7,707.2	3,054.8	10,762.0	317.0	155.1	472.0	11,234.1	4.2	65.5
Feb-2008	7,720.9	3,071.2	10,792.1	316.2	152.4	468.6	11,260.7	4.2	65.5
Mar-2008	7,735.8	3,083.4	10,819.2	317.0	151.3	468.3	11,287.5	4.1	65.6
Apr-2008	7,754.8	3,087.9	10,842.7	319.3	151.6	470.9	11,313.7	4.2	65.6
May-2008	7,777.9	3,085.6	10,863.5	322.5	152.7	475.2	11,338.7	4.2	65.6
Jun-2008	7,801.6	3,081.2	10,882.8	325.5	153.4	479.0	11,361.7	4.2	65.6
Jul-2008	7,820.8	3,079.5	10,900.3	327.5	153.2	480.7	11,381.0	4.2	65.6
Aug-2008	7,832.0	3,082.8	10,914.8	329.3	152.4	481.7	11,396.5	4.2	65.6
Sep-2008	7,834.0	3,091.5	10,925.5	333.7	151.2	484.9	11,410.4	4.3	65.5
Oct-2008	7,825.5	3,105.7	10,931.2	343.9	151.7	495.7	11,426.9	4.3	65.5
Nov-2008	7,810.3	3,122.3	10,932.6	360.3	155.3	515.6	11,448.2	4.5	65.5
Dec-2008	7,793.6	3,138.4	10,932.0	381.8	161.3	543.1	11,475.0	4.7	65.5
Jan-2009	7,778.8	3,152.2	10,931.0	407.6	167.7	575.3	11,506.3	5.0	65.5
Feb-2009	7,765.9	3,164.1	10,930.1	435.4	172.6	608.0	11,538.0	5.3	65.6
Mar-2009	7,752.3	3,176.9	10,929.2	461.0	175.4	636.5	11,565.7	5.5	65.6
Apr-2009	7,737.2	3,191.3	10,928.6	481.6	176.2	657.8	11,586.3	5.7	65.6
May-2009	7,721.6	3,207.2	10,928.8	495.2	174.7	670.0	11,598.8	5.8	65.6
Jun-2009	7,706.9	3,223.5	10,930.4	502.2	172.1	674.2	11,604.7	5.8	65.5

Jul-2009	7,695.8	3,239.5	10,935.3	503.8	169.7	673.4	11,608.7	5.8	65.4
Aug-2009	7,690.5	3,255.0	10,945.5	501.4	168.5	669.9	11,615.4	5.8	65.4
Sep-2009	7,690.9	3,271.4	10,962.2	495.5	168.5	664.0	11,626.3	5.7	65.3
Oct-2009	7,697.4	3,287.6	10,985.0	486.5	169.2	655.6	11,640.6	5.6	65.3
Nov-2009	7,708.3	3,303.7	11,012.0	476.4	170.1	646.5	11,658.5	5.5	65.3
Dec-2009	7,720.9	3,317.9	11,038.8	467.8	171.4	639.2	11,678.0	5.5	65.3
Jan-2010	7,735.4	3,327.0	11,062.4	460.6	172.6	633.2	11,695.6	5.4	65.3
Feb-2010	7,750.8	3,330.9	11,081.7	455.4	173.7	629.1	11,710.7	5.4	65.3
Mar-2010	7,767.1	3,330.2	11,097.3	452.5	174.2	626.7	11,724.0	5.3	65.3
Apr-2010	7,786.5	3,326.6	11,113.1	450.0	174.2	624.2	11,737.4	5.3	65.3
May-2010	7,808.5	3,323.2	11,131.7	446.1	174.8	620.9	11,752.7	5.3	65.3
Jun-2010	7,833.1	3,322.9	11,156.0	441.0	176.7	617.7	11,773.7	5.2	65.3
Jul-2010	7,861.2	3,326.7	11,187.8	435.0	179.5	614.6	11,802.4	5.2	65.4
Aug-2010	7,889.3	3,334.3	11,223.6	429.6	182.4	612.0	11,835.6	5.2	65.5
Sep-2010	7,913.6	3,344.0	11,257.6	426.0	184.5	610.5	11,868.1	5.1	65.6
Oct-2010	7,935.0	3,352.4	11,287.4	423.8	185.4	609.2	11,896.6	5.1	65.7
Nov-2010	7,954.8	3,357.6	11,312.4	422.2	184.5	606.7	11,919.1	5.1	65.7
Dec-2010	7,971.7	3,360.5	11,332.2	420.7	182.4	603.1	11,935.3	5.1	65.7
Jan-2011	7,985.6	3,361.7	11,347.3	419.4	179.6	599.0	11,946.4	5.0	65.7
Feb-2011	7,997.5	3,360.9	11,358.4	418.1	177.0	595.1	11,953.5	5.0	65.7
Mar-2011	8,007.8	3,359.1	11,366.9	417.6	175.2	592.7	11,959.6	5.0	65.6
Apr-2011	8,014.9	3,359.7	11,374.6	419.3	174.8	594.2	11,968.8	5.0	65.6
May-2011	8,019.4	3,363.3	11,382.6	423.7	175.3	599.0	11,981.6	5.0	65.5
Jun-2011	8,021.7	3,370.0	11,391.7	429.7	176.0	605.7	11,997.4	5.0	65.5
Jul-2011	8,021.8	3,378.6	11,400.5	436.7	176.8	613.6	12,014.0	5.1	65.6
Aug-2011	8,022.1	3,386.8	11,408.8	443.2	177.7	620.9	12,029.7	5.2	65.6
Sep-2011	8,024.0	3,391.8	11,415.8	447.5	178.0	625.5	12,041.3	5.2	65.5
Oct-2011	8,026.5	3,393.5	11,420.0	449.8	177.8	627.6	12,047.6	5.2	65.5
Nov-2011	8,029.9	3,393.1	11,423.0	450.0	177.3	627.3	12,050.2	5.2	65.4
Dec-2011	8,037.5	3,392.1	11,429.5	448.2	177.1	625.3	12,054.8	5.2	65.3
Jan-2012	8,048.9	3,392.9	11,441.7	444.9	178.1	623.0	12,064.7	5.2	65.3
Feb-2012	8,060.5	3,398.0	11,458.5	441.3	180.8	622.0	12,080.5	5.1	65.3
Mar-2012	8,070.2	3,407.1	11,477.3	438.3	183.5	621.8	12,099.1	5.1	65.3
Apr-2012	8,077.3	3,417.7	11,495.1	437.6	184.9	622.5	12,117.5	5.1	65.3
May-2012	8,083.0	3,425.7	11,508.7	440.9	184.3	625.2	12,133.9	5.2	65.3
Jun-2012	8,090.0	3,428.1	11,518.1	447.8	182.2	630.0	12,148.1	5.2	65.3

Jul-2012	8,099.7	3,424.3	11,524.1	456.9	178.9	635.8	12,159.9	5.2	65.2
Aug-2012	8,111.5	3,418.2	11,529.7	466.1	175.9	642.0	12,171.7	5.3	65.2
Sep-2012	8,123.6	3,415.0	11,538.6	472.4	175.0	647.4	12,186.0	5.3	65.2
Oct-2012	8,132.9	3,419.0	11,551.9	474.8	176.7	651.5	12,203.4	5.3	65.2
Nov-2012	8,137.9	3,430.8	11,568.8	474.9	180.5	655.4	12,224.2	5.4	65.2
Dec-2012	8,139.7	3,448.3	11,587.9	475.2	184.8	660.0	12,247.9	5.4	65.2
Jan-2013	8,139.1	3,468.1	11,607.2	478.3	187.1	665.4	12,272.6	5.4	65.3
Feb-2013	8.138.9	3,486.5	11,625.4	485.0	186.9	671.9	12,297.3	5.5	65.3
Mar-2013	8,139.4	3,499.4	11,638.8	494.3	185.5	679.8	12,318.7	5.5	65.3
Apr-2013	8,140.2	3,506.3	11,646.5	503.5	184.7	688.2	12,334.6	5.6	65.3
May-2013	8,139.8	3,509.9	11,649.7	510.9	184.4	695.3	12,345.0	5.6	65.2
Jun-2013	8,138.1	3,512.5	11,650.6	516.5	185.3	701.9	12,352.5	5.7	65.2
Jul-2013	8,135.6	3,514.2	11,649.8	520.6	187.1	707.7	12,357.5	5.7	65.1
Aug-2013	8,134.1	3,514.2	11,648.3	523.1	189.3	712.4	12,360.7	5.8	65.1

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Dataset Eco4: Unemployment by Sex, Sep 1994 to Jun 2013 (quarterly)

Period	Unemployed total ('000)			Unemployment rate (%)		
	Males	Females	Persons	Males	Females	Persons
Sep-1994	480.2	341.6	821.8	9.5	9.1	9.3
Dec-1994	465.7	332.0	797.7	9.2	8.8	9.0
Mar-1995	452.5	319.4	771.9	8.8	8.4	8.6
Jun-1995	450.5	300.9	751.5	8.8	7.8	8.3
Sep-1995	455.2	305.0	760.2	8.8	7.8	8.4
Dec-1995	454.9	311.3	766.1	8.8	8.0	8.4
Mar-1996	453.4	315.0	768.4	8.7	8.1	8.5
Jun-1996	452.2	322.8	775.0	8.7	8.2	8.5
Sep-1996	458.6	329.5	788.1	8.8	8.4	8.6
Dec-1996	460.5	336.1	796.6	8.8	8.5	8.7
Mar-1997	462.3	335.1	797.4	8.9	8.4	8.7
Jun-1997	460.1	328.9	789.0	8.8	8.3	8.6
Sep-1997	448.6	315.0	763.7	8.6	7.9	8.3
Dec-1997	431.9	306.0	737.9	8.2	7.7	8.0

Mar-1998	423.0	300.2	723.2	8.0	7.5	7.8
Jun-1998	430.2	296.6	726.8	8.1	7.3	7.8
Sep-1998	425.6	296.4	722.0	8.0	7.3	7.7
Dec-1998	405.1	290.2	695.4	7.6	7.1	7.4
Mar-1999	387.3	279.7	667.0	7.3	6.9	7.1
Jun-1999	375.9	270.7	646.7	7.1	6.7	6.9
Sep-1999	370.9	271.1	642.0	7.0	6.6	6.8
Dec-1999	358.6	268.0	626.6	6.7	6.4	6.6
Mar-2000	347.6	269.0	616.6	6.5	6.4	6.5
Jun-2000	342.4	255.0	597.5	6.4	6.0	6.2
Sep-2000	343.4	239.9	583.3	6.4	5.7	6.1
Dec-2000	355.0	249.0	604.0	6.6	5.9	6.3
Mar-2001	368.2	267.4	635.6	6.8	6.2	6.6
Jun-2001	385.5	285.7	671.3	7.1	6.6	6.9
Sep-2001	392.1	289.0	681.1	7.2	6.7	7.0
Dec-2001	387.4	286.7	674.1	7.1	6.6	6.9
Mar-2002	372.6	266.6	639.2	6.8	6.1	6.5
Jun-2002	357.2	266.1	623.2	6.5	6.1	6.3
Sep-2002	347.2	273.7	621.0	6.3	6.2	6.3
Dec-2002	344.1	271.5	615.6	6.2	6.1	6.1
Mar-2003	342.3	270.9	613.2	6.2	6.0	6.1
Jun-2003	337.1	270.7	607.8	6.1	6.0	6.0
Sep-2003	318.8	270.4	589.2	5.7	6.0	5.8
Dec-2003	303.3	268.3	571.6	5.4	5.9	5.6
Mar-2004	300.1	257.2	557.3	5.3	5.7	5.5
Jun-2004	302.9	254.0	556.9	5.4	5.6	5.5
Sep-2004	299.5	248.8	548.3	5.3	5.4	5.3
Dec-2004	285.6	244.1	529.8	5.0	5.3	5.1
Mar-2005	280.8	254.0	534.7	4.9	5.4	5.1
Jun-2005	279.4	250.1	529.5	4.8	5.3	5.0
Sep-2005	285.0	242.3	527.3	4.9	5.1	5.0
Dec-2005	293.9	244.2	538.1	5.0	5.1	5.1
Mar-2006	285.8	245.2	530.9	4.9	5.1	5.0
Jun-2006	275.2	239.0	514.2	4.7	4.9	4.8
Sep-2006	270.9	232.4	503.3	4.6	4.7	4.6
Dec-2006	259.8	239.1	498.9	4.4	4.9	4.6

Mar-2007	245.5	242.7	488.3	4.1	4.9	4.5
Jun-2007	235.6	238.0	473.6	3.9	4.8	4.3
Sep-2007	243.0	238.7	481.7	4.0	4.7	4.3
Dec-2007	243.6	233.9	477.5	4.0	4.6	4.3
Mar-2008	239.5	228.8	468.3	3.9	4.5	4.1
Jun-2008	243.2	235.7	479.0	3.9	4.6	4.2
Sep-2008	245.9	239.0	484.9	3.9	4.6	4.3
Dec-2008	290.1	252.9	543.1	4.6	4.8	4.7
Mar-2009	354.6	281.9	636.5	5.6	5.3	5.5
Jun-2009	383.5	290.7	674.2	6.1	5.5	5.8
Sep-2009	372.0	292.0	664.0	5.9	5.5	5.7
Dec-2009	352.6	286.6	639.2	5.5	5.4	5.5
Mar-2010	343.2	283.5	626.7	5.4	5.3	5.3
Jun-2010	330.9	286.8	617.7	5.2	5.4	5.2
Sep-2010	317.5	292.9	610.5	4.9	5.4	5.1
Dec-2010	310.3	292.8	603.1	4.8	5.4	5.1
Mar-2011	305.8	286.9	592.7	4.7	5.3	5.0
Jun-2011	316.7	289.0	605.7	4.9	5.3	5.0
Sep-2011	333.1	292.4	625.5	5.1	5.3	5.2
Dec-2011	330.7	294.5	625.3	5.0	5.4	5.2
Mar-2012	325.6	296.2	621.8	5.0	5.4	5.1
Jun-2012	334.0	296.0	630.0	5.1	5.3	5.2
Sep-2012	352.5	294.9	647.4	5.3	5.3	5.3
Dec-2012	359.6	300.4	660.0	5.4	5.4	5.4
Mar-2013	368.8	311.0	679.8	5.5	5.5	5.5
Jun-2013	382.3	319.6	701.9	5.7	5.7	5.7

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Eco5: Annual Gross Domestic Product (GDP), Measures over time, 2002-03 to 2012-13 (financial yearly)

PERCENTAGE CHANGE (a)											
Chain volume GDP and related measures (b)	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
GDP	3.2	4.1	3.2	3.0	3.8	3.8	1.6	2.1	2.4	3.4	2.8
GDP per capita (c)	1.9	2.9	2.0	1.6	2.1	1.9	-0.5	0.2	1.1	1.8	1.1

GDP market sector (d)	3.2	4.7	3.3	3.2	4.1	4.3	1.2	2.3	2.6	3.1	2.6
Net domestic product	2.9	3.9	2.8	2.5	3.4	3.3	0.9	1.5	2.0	3.1	2.5
Real income measures (b)	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Real gross domestic income	3.5	5.6	4.9	5.0	5.3	4.9	3.2	1.1	6.5	3.5	0.6
Real gross national income	3.3	5.5	3.9	4.8	4.6	5.3	3.8	0.7	6.5	4.6	1.2
Real net national disposable income	3.0	5.5	3.6	4.6	4.4	5.2	3.4	-0.3	6.9	4.5	0.6
Real net national disposable income per capita (c)	1.8	4.2	2.3	3.1	2.8	3.3	1.2	-2.1	5.5	2.8	-1.2
Current price measures	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
GDP	6.1	7.3	7.1	8.0	8.9	8.5	6.7	3.0	8.6	5.0	2.5
Productivity	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Hours worked	2.7	2.0	2.3	2.3	2.9	3.0	1.1	0.0	2.6	1.6	0.4
Hours worked market sector (d)	2.1	1.7	2.7	1.5	3.1	3.1	0.2	-0.4	2.1	0.9	0.2
GDP per hour worked	0.5	2.1	0.9	0.8	0.9	0.7	0.5	2.1	-0.2	1.8	2.4
GDP per hour worked market sector (d)	1.1	3.0	0.6	1.7	1.0	1.2	1.0	2.7	0.5	2.2	2.3
Real unit labour costs	-0.6	-1.2	0.5	-0.6	-0.1	0.0	-3.1	0.2	-1.5	1.2	0.4
Real unit labour costs - non-farm	-0.9	-0.9	0.6	-0.6	-0.9	0.4	-3.2	0.4	-1.1	1.2	0.5
Prices	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Terms of Trade	1.5	7.4	9.6	10.8	7.2	5.5	7.6	-4.0	20.5	0.4	-9.7

LEVELS (Number)											
Chain volume GDP and related measures (b)	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
GDP ($m)	1,107,425	1,153,355	1,190,111	1,226,323	1,272,776	1,320,746	1,342,514	1,370,540	1,403,888	1,451,824	1,493,171
GDP per capita (c) ($)	56,020	57,641	58,772	59,699	60,982	62,121	61,787	61,935	62,599	63,698	64,398
GDP market sector (d) ($m)	772,669	809,142	835,739	862,571	897,846	936,685	947,923	969,479	994,820	1,025,727	1,052,024
Net domestic product ($m)	970,523	1,008,636	1,036,424	1,062,548	1,098,652	1,135,430	1,145,456	1,162,712	1,185,818	1,222,964	1,253,201
Real income measures (b)	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Real gross domestic income ($m)	983,738	1,038,459	1,089,044	1,143,973	1,204,271	1,263,465	1,303,785	1,318,604	1,403,888	1,453,190	1,462,548
Real gross national income ($m)	956,551	1,009,156	1,048,848	1,099,639	1,150,537	1,211,727	1,257,971	1,266,909	1,349,736	1,411,184	1,427,871
Real net national disposable income ($m)	816,820	861,556	892,160	932,970	974,481	1,025,294	1,059,894	1,057,164	1,130,125	1,180,657	1,187,151
Real net national disposable income per capita (c) ($)	41,319	43,057	44,058	45,418	46,690	48,224	48,780	47,773	50,392	51,800	51,200
Current price measures	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**

GDP ($m)	800,936	859,635	920,969	994,968	1,083,303	1,175,321	1,254,293	1,292,315	1,403,888	1,474,291	1,510,917
GDP per capita (c) ($)	40,516	42,961	45,481	48,437	51,904	55,281	57,727	58,400	62,599	64,683	65,163
Gross national income ($m)	778,651	835,305	886,913	956,338	1,034,912	1,127,182	1,210,221	1,241,689	1,349,736	1,431,698	1,470,453
National net saving ($m)	41,427	51,817	51,018	65,810	70,698	83,831	111,665	87,901	125,742	143,170	124,503
Household saving ratio	-1.0	0.7	0.5	0.2	3.6	4.2	9.6	9.2	10.5	10.4	10.6

Notes:
(a) Percentage change on preceding year.
(b) For years 2004-05 to 2011-12, the reference year for chain volume measures and real income measures is 2010-11. For years 2002-03 & 2003-04, the reference year for chain volume measures and real income measures is 2008-09.
(c) Population estimates are as published in the Australian Demographic Statistics (cat. no. 3101.0) and ABS projections.
(d) ANZSIC divisions A to N, R and S.

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Eco6: Australian goods exporters, by Country of destination, 2010-11

Country of Destination	Number of Exporters(a)	Number of Transactions	Total Value of Exports ($m)(b)
AFGHANISTAN	49	210	15
ALBANIA	16	67	3
ALGERIA	40	251	28
ANGOLA	54	212	9
ANGUILLA	5	np	1
ANTARCTICA	11	461	6
ANTIGUA AND BARBUDA	12	29	1
ARGENTINA	271	1,838	335
ARMENIA	26	71	1
AUSTRIA	342	2,737	109
AZERBAIJAN	31	234	13
BAHAMAS	21	68	2
BAHRAIN (c)	285	4,766	166
BANGLADESH	199	10,682	620
BARBADOS	32	160	5
BELARUS	11	37	1
BELGIUM	786	11,204	1,324
BELIZE	8	20	1

BENIN	15	43	1
BERMUDA	14	154	1
BHUTAN	12	np	3
BOLIVIA	40	97	2
BOSNIA AND HERZEGOVINA	21	31	9
BOTSWANA	42	76	5
BRAZIL	561	6,198	1,519
BRIT.IND.OCEAN TERRITORY	5	np	1
BRUNEI DARUSSALAM	276	8,546	33
BULGARIA	74	485	8
BURKINA FASO	66	695	7
BURMA (d)	79	1,172	80
BURUNDI	5	7	1
CAMBODIA	138	1,371	28
CAMEROON	35	324	2
CANADA	2,292	31,549	1,345
CAPE VERDE	5	np	1
CAYMAN ISLANDS	17	70	1
CENTRAL AFRICAN REPUB	5	18	1
CHAD	5	15	1
CHILE	513	11,420	371
CHINA	5,299	125,691	64,856
CHRISTMAS ISLAND	757	4,893	51
COCOS (KEELING) ISLAND	310	1,164	13
COLOMBIA	175	658	35
COMOROS, REPUBLIC OF	5	np	1
CONGO	35	169	5
COOK ISLANDS	227	1,659	7
COSTA RICA	57	356	16
COTE D'IVOIRE	67	362	7
CROATIA	65	132	17
CUBA	9	176	10
CYPRUS	101	382	8
CZECH REPUBLIC	202	1,461	102
DEM REP OF CONGO, ZAIRE	25	91	2
DENMARK	661	5,523	237

DJIBOUTI	18	48	6
DOMINICA	5	8	1
DOMINICAN REPUBLIC	55	1,152	11
EAST TIMOR, DEM REP OF	233	5,559	56
ECUADOR	74	388	10
EGYPT (c)	380	11,837	593
EL SALVADOR	21	243	24
EQUATORIAL GUINEA	13	23	1
ERITREA	22	186	4
ESTONIA	40	196	12
ETHIOPIA	42	151	2
FALKLAND ISLANDS	5	5	1
FIJI	2,724	32,359	300
FINLAND	346	2,050	226
FORMER YUG REP MACEDONIA	38	97	1
FRANCE	1,414	10,250	1,123
FRENCH ANTILLES	18	44	2
FRENCH GUIANA	5	np	1
FRENCH POLYNESIA	388	6,383	50
GABON	26	50	2
GAMBIA	5	6	1
GEORGIA	35	88	56
GERMANY	2,622	47,734	2,115
GHANA	441	5,355	154
GIBRALTAR	8	13	21
GREECE	187	781	40
GRENADA	5	8	1
GUAM	142	775	17
GUATEMALA	45	392	14
GUINEA	101	727	22
GUINEA-BISSAU	5	5	1
GUYANA	18	69	4
HAITI	8	19	1
HONDURAS	12	428	2
HONG KONG (SAR OF CHINA)	5,024	104,452	3,257
HUNGARY	113	490	12

ICELAND (c)	32	111	6
INDIA	2,162	29,184	15,761
INDONESIA	2,594	86,360	4,780
IRAN	179	1,599	157
IRAQ	71	294	327
IRELAND	428	4,039	123
ISRAEL	476	2,188	227
ITALY	1,249	11,319	1,274
JAMAICA	53	414	17
JAPAN	3,208	210,976	46,967
JORDAN	188	2,295	180
KAZAKHSTAN	95	378	22
KENYA	276	1,648	48
KIRIBATI	139	1,673	22
KOREA, REPUBLIC OF	2,187	73,423	22,556
KUWAIT	306	3,532	617
KYRGYZTAN	25	72	3
LAOS	328	2,569	25
LATVIA	69	494	8
LEBANON	242	1,600	38
LESOTHO	5	6	1
LIBERIA	37	321	4
LIBYA	37	162	11
LITHUANIA	58	107	4
LUXEMBOURG	38	80	1
MACAU (SAR OF CHINA)	186	1,312	36
MADAGASCAR	56	192	31
MALAWI	23	61	5
MALAYSIA	3,513	64,575	4,059
MALDIVES	191	3,159	29
MALI	67	1,996	23
MALTA	71	454	102
MARIANAS NORTHERN	15	101	1
MARSHALL ISLANDS	31	279	2
MAURITANIA	119	1,191	33
MAURITIUS	309	3,791	86

MEXICO	352	3,420	888
MICRONESIA FED STATES OF	38	709	6
MOLDOVA	5	6	1
MONGOLIA	223	2,230	33
MONTENEGRO (e)	8	37	6
MONTSERRAT	5	np	1
MOROCCO	61	316	29
MOZAMBIQUE	85	385	419
NAMIBIA	68	319	9
NAURU	197	1,780	15
NEPAL	63	508	12
NETHERLANDS	1,499	19,551	3,024
NETHERLANDS ANTILLES	28	100	1
NEW CALEDONIA	1,809	26,985	378
NEW ZEALAND	16,651	1,025,169	7,691
NICARAGUA	16	35	1
NIGER	8	12	1
NIGERIA	209	955	42
NIUE	13	41	1
NORFOLK ISLAND	336	2,170	9
NORWAY	463	2,959	80
OMAN	281	3,085	447
PAKISTAN	543	15,095	381
PALAU	33	76	1
PANAMA	68	469	17
PAPUA NEW GUINEA	4,790	123,877	2,213
PARAGUAY	17	39	1
PERU	234	2,424	98
PHILIPPINES	1,603	23,526	1,484
PITCAIRN ISLAND	5	np	1
POLAND	229	981	23
PORTUGAL	157	564	15
PUERTO RICO	32	164	3
QATAR	381	6,173	296
REUNION	55	252	31
ROMANIA	78	251	9

RUSSIAN FEDERATION	363	9,791	952
RWANDA	7	10	1
SAMOA	344	3,007	28
SAMOA (AMERICAN)	68	710	5
SAO TOME AND PRINCIPE	5	np	1
SAUDI ARABIA	712	16,207	1,502
SENEGAL	150	1,493	32
SERBIA (e)	29	81	1
SERBIA AND MONTENEGRO (e)	na	na	1
SEYCHELLES	59	222	8
SIERRA LEONE	93	619	14
SINGAPORE	6,338	179,163	5,464
SLOVAK REPUBLIC	63	172	3
SLOVENIA	66	380	5
SOLOMON ISLANDS	922	11,835	123
SOMALIA	8	15	1
SOUTH AFRICA	2,075	36,068	1,614
SPAIN	667	4,162	857
SRI LANKA	490	5,906	213
ST CHRISTOPHER AND NEVIS	5	8	1
ST PIERRE AND MIQUELON	5	np	1
ST. HELENA	5	674	1
ST. LUCIA	9	46	2
ST. VINCENT & GRENADINES	5	25	2
SUDAN	78	605	159
SURINAME	23	81	1
SWAZILAND	9	24	1
SWEDEN	656	4,886	496
SWITZERLAND	679	6,813	410
SYRIA	66	228	11
TAIWAN	2,065	41,173	9,109
TAJIKISTAN	6	11	1
TANZANIA	308	2,238	116
THAILAND	2,773	43,758	6,952
TOGO	20	111	3
TONGA	189	1,457	9

TRINIDAD AND TOBAGO	68	596	102
TUNISIA	29	73	3
TURKEY	440	3,179	427
TURKMENISTAN	7	8	1
TURKS AND CAICOS ISLANDS	5	np	1
TUVALU	34	351	3
UGANDA	45	211	2
UKRAINE	66	213	78
UNITED ARAB EMIRATES	2,043	55,025	2,199
UNITED KINGDOM	4,853	63,395	6,604
UNITED STATES OF AMERICA	8,742	235,796	9,055
UNITED STATES VIRGIN IS	10	88	2
URUGUAY	84	325	14
US MIN. OUTLYING ISLANDS	5	np	1
UZBEKISTAN	6	16	1
VANUATU	987	11,524	73
VENEZUELA	58	176	10
VIET NAM	1,332	15,458	1,801
VIRGIN ISLANDS, BRITISH	6	109	1
WALLIS & FUTUNA ISLANDS	30	290	6
WESTERN SAHARA	5	np	1
YEMEN	57	613	249
ZAMBIA	167	1,089	20
ZIMBABWE	58	128	2
COUNTRY CONFIDENTIAL	np	np	446
INTERNATIONAL WATERS	7	1,768	135
SHIP & AIRCRAFT STORES	161	18,116	1,590

Notes:
na not available
np not available for publication but included in totals where applicable, unless otherwise indicated
(a) For 'Numbers of Exporters', values of 5 or less are shown as 5
(b) For 'Total Value of Exports', values of $1m or less are shown as 1
(c) The value of exports of Alumina to Bahrain, Egypt and Iceland are excluded from country totals and included in the Country confidential' category. The number of exporters and number of transactions for these countries has been suppressed.
(d) Burma formerly known as Myanmar.
(e) The value for Serbia and Montenegro is taken from July 2008 to December 2008. The value for Serbia is taken from January 2009 to June 2009.

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Eco7: Industry statistics, by Division, 2011-12

Industry Division	Employment at end June ('000) (a)	Wages and salaries ($m) (b)	Sales and service income ($m) (c)	Total income ($m)	Total expenses ($m)	Operating profit before tax ($m)	Earnings before interest, tax, depreciation and amortisation ($m)	Industry value added ($m)
Accommodation & Food Services	939	20,217	85,310	86,792	77,431	9,430(e)	12,830	37,411
Administrative & Support Services	858	35,017	73,310	78,047	72,732	5,408(f)	7,771(e)	48,981
Angriculture, Forestry and Fishing	498	6,334	70,714	74,393	64,268	10,835	15,929	25,174
Arts & Recreation Services	212	5,467	29,552	31,952	27,320	4,647	4,709	11,472
Construction	1,043	52,989	318,677	324,933	293,213	29,924	35,687	99,473
Education & Training (Private)	356	15,364	18,286	32,309	28,081	4,247(e)	3,322(e)	20,936
Electricity, Gas, Water & Waste Services	116	10,366	101,664	107,472	95,981	11,832	26,706	39,837
Healthcare and Social Assistance (Private)	1,009	38,073	71,367	98,625	80,297	18,420	17,546	63,043
Information Media & Telecommunications	176	12,797	75,101	75,572	66,539	8,848	19,933	35,837
Manufacturing	929	55,295	397,705	404,485	383,344	23,537	35,022	102,146
Mining	195	23,571	218,276	237,416	156,816	83,678	90,281	132,955
Professional, Scientific & Technical Services	998	60,937	175,169	210,976	158,982	52,670	29,966	103,669
Public Administration & Safety (Private)	82	3,224	7,838	8,185	7,048	1,122(e)	1,220(e)	5,083
Rental, Hiring and Real Estate Services	389	12,385	99,104	117,664	80,612	36,832	41,094	60,488
Retail Trade	1,300	39,102	379,756	383,314	361,994	21,533(e)	25,295(e)	72,111
Transport, Postal & Warehousing	567	31,577	143,531	148,925	136,844	12,270	24,364	62,362
Wholesale Trade	589	34,272	473,213	478,345	463,070	19,994(e)	20,696(e)	62,837
Other Services	471	16,911	50,480	61,106	53,087	8,248	3,305(f)	28,438
Total Selected Industries(d)	10,727	473,896	2,789,052	2,960,513	2,607,660	363,475	415,675	1,012,254

Notes:
(a) Includes working proprietors and partners of unincorporated businesses
(b) Includes capitalised wages and salaries; excludes the drawings of working proprietors.
(c) Includes rent, leasing and hiring income
(d) Excludes Division K 'Financial and Insurance Services'
(e) Estimate has a relative standard error of 10% to less than 25% and should be used with caution
(f) Estimate has a relative standard error of 25% to 50% and should be used with caution

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Eco8: Mean disposable household income per week, by Quintile, 1994-95 to 2009-10

Period	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	All persons
1994–95	215	346	479	640	1,022	540
1995–96	216	346	474	638	996	534
1996–97	228	360	490	654	1,023	551
1997–98	225	361	500	673	1,072	566
1999–2000	228	372	521	699	1,131	590
2000–01	232	380	533	714	1,165	605
2002–03	237	395	546	734	1,186	620
2003–04 (c)	269	432	593	781	1,294	674
2005–06 (c)	287	468	641	849	1,444	738
2007-08 (c)	313	527	726	971	1,759	859
2009-10 (c)	314	524	721	975	1,704	848

Notes:
(a) In 2009-10 dollars, adjusted using changes in the Consumer Price Index.
(b) Quintile represents 20% of the whole (e.g the lower quintile is the lowest 20% of the data).
(c) Estimates presented for 2007–08 and 2009-10 are not directly comparable with estimates for previous cycles due to the improvements made to measuring income introduced in the
2007–08 cycle. Estimates for 2003–04 and 2005–06 have been recompiled to reflect the new treatments of income, however not all new components introduced in 2007-08 are available
for earlier cycles.

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Eco9: Personal finance commitments, fixed loans, 2005-06 to 2010-11

Annual ($m)							
Period	New motor cars and station wagons	Used motor cars and station wagons	Household and personal goods	Unsecured loans for owner occupation	Debt consolidation and refinancing	Other personal	Total
2005-06(a)	3,537	5,191	1,091	447	10,939	12,510	33,715
2006-07(a)	3,756	5,040	1,187	494	12,061	14,391	36,929
2007-08(a)	3,988	5,290	1,192	434	12,249	14,418	37,573

2008-09	3,406	4,745	1,297	463	15,195	13,426	38,532
2009-10	3,541	4,557	1,442	491	17,161	16,689	43,881
2010-11	4,486	5,460	1,594	495	18,202	15,260	45,495

Percentage change from previous year (%)

Period	New motor cars and station wagons	Used motor cars and station wagons	Household and personal goods	Unsecured loans for owner occupation	Debt consolidation and refinancing	Other personal	Total
2005-06(a)	-6.3	-13.4	0.9	-12.0	12.8	-0.3	0.8
2006-07(a)	5.2	-5.9	8.8	10.5	10.3	15.0	9.5
2007-08(a)	3.4	0.0	0.4	-12.2	1.6	0.2	1.7
2008-09	-14.1	-12.2	3.0	-5.8	9.4	-9.1	-3.6
2009-10	-2.2	-9.8	11.1	6.0	12.9	24.3	13.9
2010-11	23.3	15.3	10.5	0.8	6.1	-8.6	3.7

Notes:
(a) Periods 2005-06 to 2007-08 (inclusive) are sourced from a previous publication 1350.0 - Australian Economic Indicators, Jul 2009 (PDF, page 111, Table 8.3)

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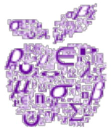

Society and Community Datasets

These datasets have been designed to increase students' understanding of ABS data & statistics in general, while giving them a fascinating insight into the lives of Australians. A g example is Dataset Soc4 which shows what field of study Australians are pursuing at various ages. This in turn can be used to indicate the kind of knowledge and skills Australians have, as well as help predict skills shortages.

The data used in the sets have been extracted from a wide range of ABS publications and adapted to make them easy to use, print and graph. Data within the sets has been updat with the latest data available, at the time of publication. If you want other data, you can access all online ABS publications through the Statistics page on the ABS website (abs.gov.au).

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Datasets

	Title	Intervals	Australian Curriculum Reference		ESU next updating
Soc1	Life expectancy at Birth, by State, 1971 to 1995 and 1993-95 to 2004-06	Mixed	▸ Mathematics ▸ Geography		None
Soc2	Crime victims, by Selected offence, 2010 to 2011	Yearly	▸ Mathematics ▸ Geography		Early 2014
Soc3	Apparent per capita consumption of pure alcohol, by Type of Beverage, 1960-61 to 2010-11	Financial Year	▸ Mathematics		Early 2014
Soc4	Field of education, by Sex, by Age, May 2012	n/a	▸ Mathematics		Early 2014
Soc5	Children participating in selected activities, by Sex, 2006-2012	3 year intervals	▸ Mathematics		None
Soc6	Motor vehicle accident death rate, Persons aged 15-24, by State / Territory, by Sex, 1998 to 2010	Yearly	▸ Mathematics	Link MAT07	Early 2014

Interactive Graphs

Title	Description	Australian Curriculum Reference	
Tourist Accommodation - Room Occupancy Rates Chart 2000 to 2010	Hotels, motels and serviced apartments with 15 or more rooms	**Coming Soon**	

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View datasets on the web below:

Soc1: Life expectancy at birth, by State, 1971 to 1995 and 1993-95 to 2004-06(a)

	Males									Females								
Period(b)	**NSW**	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT(c)**	**Australia(d)**	**NSW**	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT(c)**	**Australia(d**
1971	68.0	68.6	67.8	69.4	68.4	68.1	60.7	68.9	68.3	74.4	75.2	74.7	76.0	75.3	75.1	64.0	76.0	
1976	69.0	70.0	69.0	70.3	70.4	69.2	62.7	70.1	69.4	76.2	76.7	76.1	77.2	77.5	75.4	67.2	77.0	
1981	71.1	71.9	71.1	72.2	72.1	69.8	59.5	71.4	71.4	78.3	78.4	78.3	79.5	79.3	77.7	67.1	79.4	
1982	70.9	71.6	70.8	71.7	72.3	71.0	66.1	73.1	71.2	77.8	78.4	78.4	79.0	79.3	77.4	71.8	78.3	

1983	72.0	72.3	72.0	72.5	72.8	71.2	63.9	74.8	72.1	78.4	78.8	79.1	79.5	79.6	78.3	69.3	78.7
1984	72.1	72.8	72.5	73.0	73.2	70.9	69.1	73.6	72.5	78.6	79.3	78.9	79.8	79.6	77.6	72.3	78.8
1985	72.1	72.7	72.0	73.1	73.2	71.0	67.1	74.9	72.4	78.7	78.9	78.8	79.1	79.4	77.6	72.3	79.9
1986	72.5	73.2	73.0	73.5	73.1	72.3	67.7	73.6	72.9	78.8	79.5	79.4	79.8	79.6	78.3	73.4	79.1
1987	73.0	73.1	73.0	73.5	73.8	72.1	67.1	74.6	73.1	79.4	79.5	79.4	80.1	80.6	78.4	74.8	79.5
1988	72.6	73.6	73.3	73.6	73.7	72.6	64.9	74.5	73.1	79.0	79.9	79.8	80.3	80.2	78.8	71.4	80.5
1989	73.0	73.6	73.2	73.8	74.2	72.9	66.5	75.6	73.3	79.5	79.8	79.4	79.8	80.4	78.4	72.3	81.1
1990	73.4	74.3	74.1	74.1	74.8	72.6	66.3	75.0	73.9	79.8	80.3	80.2	80.3	80.6	79.3	72.3	80.1
1991	74.2	74.5	74.4	74.7	75.0	73.1	67.1	75.5	74.4	80.2	80.3	80.5	80.4	80.9	79.6	72.3	81.0
1992	74.1	74.8	74.4	75.1	75.2	74.0	68.3	76.6	74.5	80.2	80.7	80.2	80.9	80.9	79.2	72.5	81.3
1993	74.8	75.4	75.1	75.0	75.1	73.9	69.2	76.2	75.0	80.8	81.1	81.0	80.5	81.2	80.1	73.8	82.3
1994	74.9	75.6	74.8	75.1	75.6	73.2	69.1	76.7	75.0	80.9	81.2	80.9	81.3	81.2	79.8	73.6	81.5
1995	74.9	75.6	74.8	75.1	75.6	73.2	69.1	76.7	75.0	80.9	81.2	80.9	81.3	81.2	79.8	73.6	81.5
1993-1995	74.8	75.4	75.1	75.1	75.2	73.9	68.5	76.2	75.0	80.8	81.0	81.0	81.0	81.2	79.9	74.0	81.6
1994-1996	75.0	75.6	75.1	75.3	75.4	74.1	69.2	76.6	75.2	80.9	81.2	80.9	81.3	81.3	80.0	75.0	81.6
1995-1997	75.4	75.8	75.4	75.7	75.7	74.8	70.0	77.1	75.6	81.2	81.4	81.3	81.5	81.6	80.1	74.7	81.3
1996-1998	75.8	76.3	75.6	76.0	76.1	75.1	70.6	77.5	75.9	81.6	81.7	81.5	81.6	81.9	80.4	75.0	81.6
1997-1999	76.1	76.7	76.0	76.4	76.4	75.4	70.6	77.9	76.2	81.7	82.0	81.7	82.1	82.1	80.7	75.1	81.8
1998-2000	76.4	77.1	76.4	76.6	76.9	75.7	70.3	78.3	76.6	81.9	82.3	81.9	82.3	82.6	81.2	75.2	82.3
1999-2001	76.9	77.5	76.9	77.0	77.3	76.0	70.8	78.5	77.0	82.4	82.7	82.3	82.5	82.8	81.2	76.5	82.9
2000-2002	77.3	77.8	77.2	77.3	77.9	76.5	71.3	79.2	77.4	82.6	82.8	82.4	82.6	82.9	81.3	76.7	83.3
2001-2003	77.7	78.2	77.6	77.7	78.1	76.6	72.0	79.2	77.8	82.9	83.1	82.8	82.7	83.0	81.4	77.3	83.8
2002-2004	78.0	78.5	77.8	78.0	78.6	76.7	72.3	79.7	78.1	83.3	83.3	82.9	83.1	83.3	81.8	78.0	83.9
2003-2005	78.5	79.0	78.3	78.1	78.8	77.2	72.5	79.9	78.5	83.3	83.6	83.2	83.4	83.8	82.1	78.2	84.0
2004-2006	78.6	79.3	78.5	78.6	79.1	77.4	72.1	80.0	78.7	83.4	83.7	83.4	83.6	83.8	82.3	78.1	83.9

Notes:

(a) Due to a change in collection methodology, life expectancy tables produced by the ABS prior to 1995 differ from those published thereafter in a number of important respects. Therefore they are not comparable. See 3105.0.65.001 - Australian Historical Population Statistics, 2008, Explanatory Note 53

(b) Please note, intervals for periods 1971 to 1995 are irregular due to changes in collection cycles

(c) Excludes Jervis Bay Territory from September quarter 1993. See paragraph 13 of the Explanatory Notes.

(d) Includes Other Territories from September quarter 1993. See paragraph 13 of the Explanatory Notes.

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Soc2: Crime victims, by Selected offence, 2010 to 2011 (annual)

NUMBER

	2010									2011								
	NSW	Vic.	Qld	SA	WA(a)	Tas.	NT	ACT	Aust.	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Homicide and related offences																		
Murder	74	49	45	13	33	3	11	3	231	81	53	44	27	19	8	11	0	
Attempted murder	42	47	43	24	19	6	15	0	196	59	30	45	30	14	3	0	0	
Manslaughter	11	3	7	0	5	0	4	0	30	6	8	7	0	7	0	0	0	
Total homicide and related offences	127	99	95	37	57	9	30	3	457	146	91	96	57	40	11	11	0	
Sexual assault	6,436	3,630	4,239	1,362	1,656	178	331	188	18,020	6,001	3,784	3,896	1,354	1,547	135	298	223	17,
Kidnapping/ abduction	329	117	68	68	20	0	0	3	605	408	103	68	67	16	0	0	4	
Robbery																		
Armed robbery	2,147	1,438	767	522	542	84	46	138	5,684	2,105	1,627	883	493	630	60	51	108	5,
Unarmed robbery	4,420	1,576	992	616	1,087	65	50	112	8,918	3,220	1,655	897	536	1,142	54	57	99	7,
Total robbery	6,567	3,014	1,759	1,138	1,629	149	96	250	14,602	5,325	3,282	1,780	1,029	1,772	114	108	207	13,
Blackmail/ extortion	174	139	47	31	87	0	0	0	478	139	113	45	40	79	0	0	0	
Unlawful entry with intent																		
Involving the taking of property	48,594	31,229	31,046	10,968	22,418	3,112	2,100	3,211	152,678	47,371	30,923	30,695	11,188	26,096	2,774	1,807	1,964	152,
Other	20,058	13,181	12,208	5,862	9,162	877	1,941	1,034	64,323	20,039	12,751	12,908	5,741	10,707	783	1,698	748	65,
Total unlawful entry with intent	68,652	44,410	43,254	16,830	31,580	3,989	4,041	4,245	217,001	67,410	43,674	43,603	16,929	36,803	3,557	3,505	2,712	218,
Motor vehicle theft	19,409	12,271	7,945	4,540	6,489	1,811	962	1,333	54,760	18,446	12,327	9,190	4,505	7,778	1,735	635	766	55,
Other theft	133,682	111,632	89,274	38,988	64,727	7,496	6,957	9,448	462,204	140,743	109,927	100,745	41,045	74,357	6,650	6,223	7,883	487,
VICTIMISATION RATE(b)																		
Homicide and related offences																		

Murder	1.0	0.9	1.0	0.8	1.4	0.6	4.8	0.8	1.0	1.1	0.9	1.0	1.6	0.8	1.6	4.8	0.0
Attempted murder	0.6	0.8	1.0	1.5	0.8	1.2	6.5	0.0	0.9	0.8	0.5	1.0	1.8	0.6	0.6	0.0	0.0
Manslaughter	0.2	0.1	0.2	0.0	0.2	0.0	1.7	0.0	0.1	0.1	0.1	0.2	0.0	0.3	0.0	0.0	0.0
Total homicide and related offences	1.8	1.8	2.1	2.3	2.5	1.8	13.1	0.8	2.0	2.0	1.6	2.1	3.4	1.7	2.2	4.8	0.0
Sexual assault	89.1	65.6	94.1	82.9	72.2	35.1	144.2	52.4	80.8	82.2	67.3	85.1	81.7	65.8	26.4	129.4	61.0
Kidnapping/ abduction	4.6	2.1	1.5	4.1	0.9	0.0	0.0	0.8	2.7	5.6	1.8	1.5	4.0	0.7	0.0	0.0	1.1

Notes:
(a) Western Australian sexual assault figures may be understated (see Explanatory Notes paragraph 72).
(b) Victimisation rates are expressed as victims per 100,000 of the ABS Estimated Resident Population (ERP). These rates generally accord with international and state and territo
practice, and are calculated using the midpoint of the reference period (i.e. 30 June).

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Soc3: Apparent per capita consumption of pure alcohol (litres per person)(a), by Type of beverage(b), 1960-61 to 2010-11 (financial year)

Period	**Beer**	**Wine**	**Spirits**	**RTD(c)**	**Spirits and RTD sub-total**	**Total**
1960-61	7.06	1.16	n.a	n.a	1.12	9.34
1961-62	7.03	1.16	n.a	n.a	1.19	9.38
1962-63	7.09	1.18	n.a	n.a	1.20	9.47
1963-64	7.32	1.22	n.a	n.a	1.25	9.79
1964-65	7.54	1.22	n.a	n.a	1.34	10.10
1965-66	7.52	1.30	n.a	n.a	1.18	10.00
1966-67	7.69	1.43	n.a	n.a	1.17	10.29
1967-68	7.92	1.55	n.a	n.a	1.31	10.78
1968-69	8.15	1.67	n.a	n.a	1.30	11.12
1969-70	8.35	1.79	n.a	n.a	1.44	11.58
1970-71	8.43	1.72	n.a	n.a	1.44	11.59
1971-72	8.36	1.71	n.a	n.a	1.51	11.58
1972-73	8.59	1.85	n.a	n.a	1.71	12.15
1973-74	9.18	2.05	n.a	n.a	1.71	12.94
1974-75	9.22	2.24	n.a	n.a	1.63	13.09
1975-76	8.98	2.35	n.a	n.a	1.56	12.89

1976-77	8.96	2.39	n.a	n.a	1.71	13.06
1977-78	8.77	2.42	n.a	n.a	1.79	12.98
1978-79	8.47	2.75	n.a	n.a	1.44	12.66
1979-80	8.52	2.84	n.a	n.a	1.36	12.72
1980-81	8.29	2.96	n.a	n.a	1.47	12.72
1981-82	8.21	3.08	n.a	n.a	1.54	12.83
1982-83	7.73	3.15	n.a	n.a	1.55	12.43
1983-84	7.45	3.24	n.a	n.a	1.47	12.16
1984-85	6.79	3.33	n.a	n.a	1.57	11.69
1985-86	6.82	3.36	n.a	n.a	1.65	11.83
1986-87	6.55	3.25	n.a	n.a	1.53	11.33
1987-88	6.62	3.20	n.a	n.a	1.60	11.42
1988-89	6.62	2.97	n.a	n.a	1.66	11.25
1989-90	6.52	2.86	n.a	n.a	1.64	11.02
1990-91	6.29	2.77	n.a	n.a	1.51	10.57
1991-92	5.82	2.89	n.a	n.a	1.43	10.14
1992-93	5.51	2.84	n.a	n.a	1.49	9.84
1993-94	5.49	2.89	n.a	n.a	1.75	10.13
1994-95	5.44	2.87	n.a	n.a	1.63	9.94
1995-96	5.30	2.86	n.a	n.a	1.61	9.77
1996-97	5.28	2.96	n.a	n.a	1.70	9.94
1997-98	5.19	3.10	n.a	n.a	1.81	10.10
1998-99	5.08	3.13	n.a	n.a	1.77	9.98
1999-2000	5.05	3.22	n.a	n.a	1.65	9.92
2000-01	5.09	3.25	n.a	n.a	1.81	10.15
2001-02	4.84	3.23	n.a	n.a	1.87	9.94
2002-03	4.99	3.35	1.23	0.77	2.01	10.35
2003-04	4.72	3.44	1.21	0.85	2.06	10.22
2004-05	4.62	3.53	1.21	0.94	2.16	10.31
2005-06	4.63	3.53	1.16	0.99	2.15	10.31
2006-07	4.63	3.70	1.15	1.08	2.23	10.57
2007-08(d)	4.63	3.66	1.18	1.09	2.26	10.56
2008-09	4.62	3.73	1.30	0.74	2.04	10.40
2009-10(e)	4.45	3.82	1.28	0.71	2.00	10.27
2010-11	4.23	3.74	1.32	0.70	2.03	9.99

Notes:
n.a - not available, see footnote (b)

(a) Per capita estimates are based on the estimated resident population aged 15 years and over. See Explanatory Notes, Apparent Consumption of Alcohol, Australia, 2010-11, paragraphs 25 and 26.
(b) Consumption statistics for Ready to Drink beverages are only available separately from the period 2002-03 onwards
(c) Ready to Drink (pre-mixed) beverages.
(d) Data for Spirits have been revised
(e) Data for Beer, Wine, Spirits, RTD and Total have been revised

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Soc4: Field of education, by Sex, by Age, May 2012

MALES ('000)						
Main field of education of current study	**15–19**	**20–24**	**25–34**	**35–44**	**45–64**	**Total**
Agriculture, environmental and related studies	4.4	5.2	8.6	2.9	2.7	23.7
Architecture and building	26.2	28.3	10.5	4.5	3.3	72.8
Creative arts	17.0	25.9	6.5	2.9	2.2	54.5
Education	4.8	12.7	7.2	4.0	4.0	32.7
Engineering and related technologies	56.2	70.5	47.1	12.3	5.5	191.6
Food, hospitality and personal services	4.9	8.4	4.5	1.2	0.4	19.4
Health	13.0	22.0	19.2	10.9	8.3	73.3
Information technology	10.4	15.9	11.6	4.6	0.7	43.2
Management and commerce	31.0	68.3	67.3	36.1	25.3	228.0
Natural and physical sciences	8.9	22.8	11.3	3.7	1.5	48.3
Society and culture	16.8	38.6	28.9	22.4	15.3	121.9
Total	198.0	325.4	227.8	107.3	73.7	932.2

FEMALES ('000)						
Main field of education of current study	**15–19**	**20–24**	**25–34**	**35–44**	**45–64**	**Total**
Agriculture, environmental and related studies	5.6	4.2	6.0	2.9	2.3	21.0
Architecture and building	7.2	11.2	3.6	0.7	1.6	24.2
Creative arts	19.9	25.6	14.0	7.7	7.3	74.6
Education	18.4	33.1	25.3	19.1	15.9	111.9
Engineering and related technologies	3.3	5.1	3.6	0.7	0.9	13.6
Food, hospitality and personal services	15.2	13.4	9.3	5.5	2.2	45.7
Health	31.0	54.2	44.9	21.6	24.5	176.2

Information technology	2.9	2.2	3.9	1.1	0.7	10.8
Management and commerce	40.8	87.1	68.5	50.0	40.5	286.9
Natural and physical sciences	12.3	18.3	8.1	2.6	1.2	42.5
Society and culture	36.5	77.1	69.3	42.9	45.4	271.3
Total	201.3	338.0	262.5	159.4	146.9	1,108.2

PERSONS ('000)						
Main field of education of current study	**15–19**	**20–24**	**25–34**	**35–44**	**45–64**	**Total**
Agriculture, environmental and related studies	10.0	9.5	14.6	5.7	5.0	44.8
Architecture and building	33.4	39.5	14.1	5.2	4.9	97.0
Creative arts	36.9	51.6	20.5	10.6	9.5	129.1
Education	23.3	45.9	32.4	23.1	19.9	144.6
Engineering and related technologies	59.5	75.5	50.6	13.1	6.5	205.2
Food, hospitality and personal services	20.1	21.8	13.9	6.7	2.7	65.1
Health	44.0	76.2	64.1	32.5	32.7	249.5
Information technology	13.3	18.2	15.5	5.7	1.3	54.0
Management and commerce	71.8	155.4	135.8	86.1	65.8	514.9
Natural and physical sciences	21.2	41.1	19.4	6.3	2.7	90.8
Society and culture	53.3	115.8	98.2	65.3	60.7	393.3
Total	399.4	663.4	490.3	266.7	220.6	2,040.4

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Soc5: Children participating in selected activities(a), by Sex, 2006-2012 (3 year intervals)

	PARTICIPATION RATE (%)								
	MALES			**FEMALES**			**PERSONS**		
	2006	**2009**	**2012**	**2006**	**2009**	**2012**	**2006**	**2009**	**2012**
Participation in organised cultural activities									
Playing a musical instrument	17.6	18.7	16.0	21.6	20.7	19.3	19.5	19.7	
Singing	2.9	3.1	2.5	8.3	9.2	7.9	5.5	6.1	
Dancing	2.4	3.0	3.5	23.1	26.3	27.1	12.5	14.3	
Drama	2.8	2.8	3.5	6.2	6.6	5.9	4.5	4.7	
Organised art and craft	n.a	n.a	4.7	n.a	n.a	9.1	n.a	n.a	

At least one selected organised cultural activity	n.a	n.a	23.9	n.a	n.a	47.1	n.a	n.a
Attendance at cultural venues and events								
Visited public library	52.8	51.6	50.5	57.5	55.9	55.5	55.1	53.7
Visited museum or art gallery	38.2	40.9	42.0	36.4	41.8	44.9	37.3	41.3
Attended performing arts event	26.1	29.1	34.3	34.9	38.3	43.0	30.4	33.6
At least one selected venue or event	68.5	68.9	68.0	72.7	73.0	74.1	70.5	70.9
Participation in organised sports (excluding dancing)								
Swimming and diving	16.5	17.2	16.5	18.2	19.8	18.9	17.4	18.5
Soccer (outdoor)	19.6	19.9	21.7	6.4	6.2	6.5	13.2	13.2
Australian Rules football	13.8	16.0	14.9	0.9	0.9	1.0	7.5	8.6
Netball	0.1	0.3	0.2	17.3	17.0	16.2	8.5	8.4
Basketball	7.4	8.5	9.2	5.7	6.3	6.6	6.6	7.4
Tennis	8.0	9.4	8.4	6.6	6.3	6.3	7.3	7.9
Martial arts	6.1	7.5	7.8	2.9	3.7	3.7	4.5	5.7
Gymnastics	n.a	n.a	1.7	n.a	n.a	8.1	n.a	n.a
Cricket (outdoor)	10.1	9.7	8.6	0.4	0.5	0.6	5.4	5.2
Rugby League	7.9	7.0	7.5	0.3	0.0	0.2	4.2	3.6
Athletics, track and field	2.6	3.0	3.2	3.2	3.5	3.1	2.9	3.3
Rugby Union	3.9	3.8	4.0	0.1	0.1	0.1	2.1	2.0
Touch football	n.a	1.9	2.1	n.a	1.5	1.6	n.a	1.7
Soccer (indoor)	3.3	4.3	2.5	1.1	1.3	0.9	2.2	2.8
Hockey	1.7	1.8	1.3	2.2	2.4	2.0	1.9	2.1
Other organised sports	n.a	n.a	11.8	n.a	n.a	9.2	n.a	n.a
At least one organised sport	n.a	n.a	66.4	n.a	n.a	53.6	n.a	n.a
Organised sports and/or dancing	n.a	n.a	67.4	n.a	n.a	65.3	n.a	n.a

Selected recreational activities								
Skateboarding, rollerblading or riding a scooter	n.a	55.9	60.0	n.a	42.4	47.2	n.a	49.3
Bike riding	73.4	66.1	69.9	61.9	54.4	56.8	67.8	60.4
Watching TV, DVDs or videos	97.6	97.0	96.0	97.3	97.7	95.6	97.4	97.4
Other screen-based activities	n.a	86.5	86.9	n.a	79.7	83.7	n.a	83.2
Recreational art and craft	n.a	n.a	33.0	n.a	n.a	54.2	n.a	n.a
Reading for pleasure	68.8	64.6	65.1	80.4	80.2	77.4	74.5	72.2
Homework or other study	81.0	80.1	80.0	84.9	84.8	82.9	82.9	82.4
At least one selected recreational activity	n.a	n.a	99.0	n.a	n.a	98.8	n.a	n.a
Accessed the Internet	65.3	80.0	89.4	64.6	78.9	90.0	64.9	79.4
Has a mobile phone	n.a	28.7	27.8	n.a	33.2	31.1	n.a	30.9
Total aged 5–14 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:
n.a - not applicable

(a) Children aged 5-14 years

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Soc6: Motor vehicle accident death rate, Persons aged 15-24, by State / Territory, by Sex, 1998 to 2010(a) (yearly)

	Age-specific death rate (per 100,000)																	
	Australia		**NSW**		**Vic**		**Qld**		**SA**		**WA**		**Tas**		**NT**		**ACT**	
	Males aged 15–24 years(b)	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Females aged 15–24 years(b)**	**Males aged 15–24 years(b)**	**Fema ag 15– year**
1998	27	9	24	8	24	8	30	10	32	6	33	13	28	13	55	48	50	
1999	27	9	24	9	23	7	27	7	36	8	33	8	38	29	80	n.p.	12	

2000	28	10	27	9	22	10	23	7	38	8	36	14	44	n.p.	74	34	16
2001	27	7	25	7	25	7	30	7	22	7	36	9	29	10	56	n.p.	n.p.
2002	24	8	23	5	23	7	29	12	26	8	26	10	9	13	31	48	15
2003	23	7	18	7	20	4	24	8	36	12	32	13	25	0	62	35	n.p.
2004	20	8	14	7	19	8	25	8	23	8	22	11	42	13	43	n.p.	n.p.
2005	20	6	13	3	25	5	17	8	34	7	24	9	18	n.p.	60	n.p.	11
2006(c)	24	8	22	7	15	7	29	7	23	8	38	11	36	19	65	n.p.	n.p.
2007(d)	19	7	12	5	14	5	25	9	29	9	25	11	42	n.p.	40	n.p.	18
2008(e)	19	6	12	5	15	5	25	4	20	6	30	11	18	n.p.	100	36	n.p.
2009(f)	17	6	13	4	13	6	18	8	26	11	22	6	32	n.p.	38	n.p.	n.p.
2010	17	4	12	4	17	3	18	4	19	8	19	7	26	n.p.	68	n.p.	17

Notes:
n.p - not published

(a) Data since 2006 has been subject to process improvements which have increased the quality of this data. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised.
Affected data in this table are: 2006 (final) 2007 (final), 2008 (final), 2009 (revised), 2010 (preliminary). See Cause of Death, Australia, 2010 (cat. no. 3303.0) Explanatory Notes 35
and Technical Notes, Causes of Death Revisions, 2006
and Causes of Death Revisions, 2008 and 2009.
(b) Rates are age specific: deaths per 100,000 for age group 15-24 years of the estimated population
(c) Male and female data has been revised for Australia, NSW, Vic, Qld & SA; Male data has been revised for WA & NT
(d) Male and female data has been revised for Australia, NSW, Vic, Qld & WA; Male data has been revised for ACT
(e) Male and female data has been revised for Australia, NSW, Vic & NT; Male data has been revised for Qld, SA & Tas, Female data has been revised for WA
(f) Male and female data has been revised for NSW, Vic & Qld; Male data has been revised for Australia

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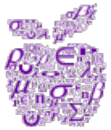

Population Datasets

These datasets have been designed to increase students' understanding of ABS data & statistics in general, while giving them a fascinating insight into the lives of Australians. For instance, Dataset Pop5 shows the estimated population of Australia every 10 years from 1901 to 2001. This demonstrates Australia's population growth and allows for future population estimations to be made.

The data used in the sets have been extracted from a wide range of ABS publications and adapted to make them easy to use, print and graph. Data within the sets has been updated with the latest data available, at the time of publication. If you want other data, you can access all online ABS publications through the Statistics page on the ABS website (abs.gov.au).

Tables that have this icon have interactive graphs that you can view. Simply click on the icon next to table to go to the interactive graph.

Link MATE2 Tables that have this icon have learning tasks that you can view and download. Simply click on the icon next to table to go to the learning task.

Download dataset Excel file here:
(all datasets) .xls

Datasets

Title	Intervals	Australian Curriculum Reference	ESU next updating

Pop1	Estimated Resident Population (ERP), by Top 25 countries of birth (incl Australia), by Sex ratio, & by Median age, 1996 to 2011	Yearly	▸ Mathematics ▸ Geography ▸ History	Link MATE2 ●	Early 2014
Pop2	Estimated Resident Population (ERP), by Sex ratio, by State / Territory, 1911 to 2007	Yearly	▸ Mathematics ▸ Geography ▸ History	●	None
Pop3	Indigenous population, by State / Territory, 1788 to 2006	Selected years	▸ Mathematics ▸ History	●	None
Pop4	Population, by Country of birth, by State / Territory, 1846-1891	Selected years	▸ Mathematics ▸ Geography		None
Pop5	Population, by Sex, by Age, 1901 to 2001	Decadal	▸ Mathematics		None
Pop6	Indigenous population, by Sex, by Age, 1986 to 2006	Selected Census years	▸ Mathematics		None

Interactive Graphs

Title	**Description**	**Australian Curriculum Reference**	
Population Projections, Australia, 2006 to 2101	Watch Australia's population projections come to life using Google Motion Charts.	▸ Mathematics ▸ Geography	●
Animated Historical Population Chart 1788 to 2007	Estimated population by States and Territories 1788 to 2007	▸ Mathematics ▸ Geography ▸ History	●
Animated Population Pyramid 2012	Age structure of estimated resident population of males and females in 2012	▸ Mathematics ▸ Geography	●

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View datasets on the web below:

Datasets Pop1, Pop2 and Pop4 are not available to view online as they are too large. To view these datasets, you will need to download the Excel file.

Pop3: Indigenous population, by State / Territory, 1788 to 2006 (selected years)(a)

	Minimum Estimated Indigenous Population								
	NSW	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT**	**Australia**
1788	48,000	15,000	120,000	15,000	62,000	4,500	50,000	n.a	314,500
1861	16,000	2,384	60,000	9,000	44,500	18	48,500	n.a	180,402
1871	12,000	1,700	50,000	7,500	40,000	85	44,000	n.a	155,285
1881	10,000	1,200	40,000	6,346	35,500	120	38,500	n.a	131,666
1891	8,280	900	32,000	5,600	31,000	139	33,000	n.a	110,919
1901	7,434	850	27,500	4,888	26,500	157	27,235	n.a	94,564
1911	8,650	1,000	24,500	4,692	22,498	230	22,000	18	83,588
1921	9,350	1,400	22,500	4,598	19,547	400	17,809	33	75,604
1933	11,000	2,000	22,500	4,699	17,500	675	15,386	68	73,828
1947	14,500	3,000	27,500	5,600	18,250	1,175	16,875	100	87,000
1954	17,500	3,800	32,000	6,300	20,000	1,525	18,750	173	100,048
1961	21,500	4,650	37,500	7,200	22,500	2,000	22,000	145	117,495
1966	24,500	5,500	41,500	8,100	25,000	2,450	25,000	169	132,219

	Enumerated Indigenous Population								
	NSW	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT(b)**	**Australia(c)**
1971	23,873	6,371	31,922	7,299	22,181	671	23,381	255	115,953
1976	40,450	14,760	41,345	10,714	26,126	2,942	23,751	827	160,915
1981	35,367	6,057	44,698	9,825	31,351	2,688	29,088	823	159,897
1986(d)	58,999	12,600	61,250	14,285	37,786	6,716	34,738	1,059	227,593
1991(d)	69,999	16,729	70,102	16,223	41,769	8,882	39,893	1,592	265,371
1996(d)	101,485	21,474	95,518	20,444	50,793	13,873	46,277	2,899	352,970
2001(d)	119,865	25,078	112,772	23,425	58,496	15,773	50,785	3,576	410,003
2006(d)	138,182	30,154	127,644	25,566	58,701	16,663	53,924	3,967	455,028

Notes:
n.a - not applicable

(a) From 1971, the Indigenous population was enumerated through the Census of Population and Housing. This was the first Census after the 1967 Referendum, which resulted in a change to the Australian Constitution to count Indigenous people as part of the Australian population. The data presented here is split between estimates (1788 to 1966) and enumerated figures (1971 to 2006) to recognise the change in the scope and method of counting Indigenous Australians over time.
(b) Excludes overseas visitors.
(c) Includes Jervis Bay Territory from 1915 to June quarter 1993. See paragraph 13 of the Explanatory Notes
(d) Includes Other Territories from September quarter 1993. See paragraph 13 of the Explanatory Notes.

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Pop5: Population(a), by Sex, by Age, 1901 to 2001 (decadal)

	Males										
	1901	**1911**	**1921**	**1931**	**1941**	**1951**	**1961**	**1971**	**1981**	**1991**	**2001**
0-4	219,987	267,411	307,300	312,200	299,900	478,100	573,700	638,941	583,218	652,302	657,499
5-9	231,132	229,586	302,200	323,400	269,200	380,800	535,600	638,899	649,103	652,418	693,790
10-14	218,946	215,804	268,600	309,700	306,100	308,000	521,000	640,774	672,237	638,311	693,083
15-19	189,434	226,831	237,800	311,700	320,600	280,400	416,000	577,771	660,779	698,773	690,668
20-24	174,644	228,179	220,100	290,500	307,300	330,600	360,100	581,547	659,839	707,124	660,776
25-29	163,029	199,922	224,700	266,400	307,500	358,200	341,100	497,534	622,410	702,728	700,910
30-34	156,062	171,119	227,100	243,000	286,400	324,200	386,900	425,822	622,253	713,784	726,919
35-39	152,163	151,872	198,900	234,200	260,400	326,300	394,100	388,710	504,178	664,228	741,434
40-44	126,135	144,867	170,600	228,500	235,600	297,400	343,800	415,976	427,182	655,138	734,436
45-49	88,833	133,079	146,300	195,800	220,900	258,900	335,600	407,574	377,330	526,498	675,055
50-54	66,809	108,132	135,000	161,000	211,500	224,100	292,200	339,272	395,549	433,762	652,540
55-59	52,928	72,058	117,400	129,900	173,500	197,500	237,800	306,569	370,137	367,302	512,888
60-64	46,074	51,416	91,000	113,100	134,100	178,300	190,000	249,170	291,847	366,779	413,982
65-69	38,326	40,227	57,300	91,000	98,400	130,600	149,300	189,631	250,145	320,142	335,590
70-74	25,675	29,063	33,600	61,900	74,700	87,600	117,000	127,045	176,029	228,494	303,554
75-79	12,709	18,831	19,800	30,600	47,800	51,300	69,000	77,825	106,191	158,993	227,356
80-84	5,961	8,808	9,500	13,000	23,100	28,300	33,300	43,819	52,056	84,413	128,250
85 and over	2,192	3,429	4,700	5,300	7,500	13,100	15,800	21,057	27,784	44,220	81,922
Unspecified	7,052	10,756	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Period not indicated	n.a	1,645	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Total	1,978,091	2,313,035	2,771,900	3,321,200	3,584,500	4,253,700	5,312,300	6,567,936	7,448,267	8,615,409	9,630,652
	Females										
	1901	**1911**	**1921**	**1931**	**1941**	**1951**	**1961**	**1971**	**1981**	**1991**	**2001**

0-4	214,754	258,222	296,300	299,300	288,700	456,400	546,400	610,824	556,400	619,401	624,858
5-9	225,849	223,660	295,100	314,400	258,800	365,100	511,600	607,537	620,451	619,790	657,874
10-14	215,206	212,357	262,200	298,900	297,200	297,700	496,700	610,302	644,131	603,308	660,094
15-19	188,681	221,705	232,800	304,700	315,800	268,000	394,300	558,525	636,266	665,301	662,077
20-24	176,349	218,091	230,000	273,200	299,100	311,500	335,000	559,060	642,027	689,640	641,636
25-29	157,515	188,454	237,300	245,200	303,700	337,100	312,100	464,860	607,572	696,935	706,171
30-34	136,009	159,841	221,100	239,200	269,600	314,200	352,300	398,147	604,689	711,951	739,696
35-39	120,547	139,560	191,300	239,300	239,700	314,700	371,700	366,150	484,894	664,159	750,770
40-44	95,055	124,651	161,900	220,800	232,200	273,000	334,400	387,450	406,623	639,133	744,821
45-49	66,176	108,537	137,300	185,500	228,200	235,500	323,600	390,270	358,334	502,647	683,539
50-54	52,263	84,787	120,100	152,900	208,200	223,700	272,100	338,238	379,060	413,172	648,237
55-59	43,366	56,923	100,500	126,700	171,000	211,600	227,000	309,927	370,456	358,648	495,911
60-64	37,224	43,974	78,800	108,800	136,600	186,700	208,500	267,043	321,296	370,089	408,042
65-69	30,094	36,464	50,000	84,600	104,700	144,100	185,600	209,400	286,071	351,248	346,923
70-74	18,301	26,007	32,000	59,600	81,700	105,100	147,500	171,941	225,431	282,261	334,826
75-79	9,739	16,501	20,700	30,600	52,300	65,500	95,700	125,712	154,420	225,502	292,000
80-84	4,961	7,689	10,300	14,600	27,400	38,500	53,500	78,070	102,067	145,415	201,800
85 and over	2,030	3,564	5,500	7,000	10,500	19,600	27,900	45,873	74,805	110,027	183,313
Unspecified	1,862	9,896	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Period not indicated	n.a	1,087	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Total	1,795,981	2,141,970	2,683,200	3,205,300	3,525,400	4,168,000	5,195,900	6,499,329	7,474,993	8,668,627	9,782,588

	Persons										
	1901	**1911**	**1921**	**1931**	**1941**	**1951**	**1961**	**1971**	**1981**	**1991**	**2001**
0-4	434,741	525,633	603,600	611,500	588,600	934,500	1,120,100	1,249,765	1,139,618	1,271,703	1,282,357
5-9	456,981	453,246	597,300	637,800	528,000	745,900	1,047,200	1,246,436	1,269,554	1,272,208	1,351,664
10-14	434,152	428,161	530,800	608,600	603,300	605,700	1,017,700	1,251,076	1,316,368	1,241,619	1,353,177
15-19	378,115	448,536	470,600	616,400	636,400	548,400	810,300	1,136,296	1,297,045	1,364,074	1,352,745
20-24	350,993	446,270	450,100	563,700	606,400	642,100	695,100	1,140,607	1,301,866	1,396,764	1,302,412
25-29	320,544	388,376	462,000	511,600	611,200	695,300	653,200	962,394	1,229,982	1,399,663	1,407,081
30-34	292,071	330,960	448,200	482,200	556,000	638,400	739,200	823,969	1,226,942	1,425,735	1,466,615
35-39	272,710	291,432	390,200	473,500	500,100	641,000	765,800	754,860	989,072	1,328,387	1,492,204
40-44	221,190	269,518	332,500	449,300	467,800	570,400	678,200	803,426	833,805	1,294,271	1,479,257
45-49	155,009	241,616	283,600	381,300	449,100	494,400	659,200	797,844	735,664	1,029,145	1,358,594
50-54	119,072	192,919	255,100	313,900	419,700	447,800	564,300	677,510	774,609	846,934	1,300,777
55-59	96,294	128,981	217,900	256,600	344,500	409,100	464,800	616,496	740,593	725,950	1,008,799

60-64	83,298	95,390	169,800	221,900	270,700	365,000	398,500	516,213	613,143	736,868	822,024
65-69	68,420	76,691	107,300	175,600	203,100	274,700	334,900	399,031	536,216	671,390	682,513
70-74	43,976	55,070	65,600	121,500	156,400	192,700	264,500	298,986	401,460	510,755	638,380
75-79	22,448	35,332	40,500	61,200	100,100	116,800	164,700	203,537	260,611	384,495	519,356
80-84	10,922	16,497	19,800	27,600	50,500	66,800	86,800	121,889	154,123	229,828	330,050
85 and over	4,222	6,993	10,200	12,300	18,000	32,700	43,700	66,930	102,589	154,247	265,235
Unspecified	8,914	20,652	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Period not indicated	n.a	2,732	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Total	3,774,072	4,455,005	5,455,100	6,526,500	7,109,900	8,421,700	10,508,200	13,067,265	14,923,260	17,284,036	19,413,240

Notes:
n.a - not applicable

(a) Data for 1901 and 1911 are census counts. Data for 1921 to 1961 (inclusive) are population estimates. Data from 1971 onwards are estimates of the resident population (ERP). Includes Other Territories from 1994 onwards.
See paragraph 13 of the Explanatory Notes.

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Pop6: Indigenous population(a), by Sex, by Age, 1986 to 2006 (selected Census years(b))

	Males					Females					Persons				
	1986	1991	1996	2001	2006	1986	1991	1996	2001	2006	1986	1991	1996	2001	2006
0-4	16,838	21,581	28,263	30,551	32,753	16,177	20,438	27,318	29,653	31,673	33,015	42,019	55,581	60,204	64,426
5-9	15,167	18,860	26,884	32,065	33,335	14,403	18,036	25,479	29,967	31,801	29,570	36,896	52,363	62,032	65,136
10-14	16,058	16,526	23,577	29,152	33,254	15,188	15,657	22,868	27,304	31,433	31,246	32,183	46,445	56,456	64,687
15-19	15,711	16,028	19,141	23,526	28,329	15,091	15,258	18,873	23,053	26,614	30,802	31,286	38,014	46,579	54,943
20-24	13,320	15,456	18,049	18,600	22,657	12,874	14,950	18,588	18,809	22,122	26,194	30,406	36,637	37,409	44,779
25-29	10,798	13,024	16,106	18,069	18,246	10,565	12,779	17,635	19,349	18,620	21,363	25,803	33,741	37,418	36,866
30-34	8,210	10,584	13,749	16,566	17,737	8,219	10,625	15,210	18,296	18,546	16,429	21,209	28,959	34,862	36,283
35-39	6,541	8,391	11,777	14,612	16,624	6,694	8,615	12,881	16,065	18,136	13,235	17,006	24,658	30,677	34,760
40-44	4,779	6,341	9,404	12,471	14,517	5,032	6,692	10,218	13,114	15,734	9,811	13,033	19,622	25,585	30,251
45-49	3,728	4,650	7,406	9,933	12,062	3,978	4,770	7,912	10,425	13,011	7,706	9,420	15,318	20,358	25,073
50-54	2,858	3,514	5,289	7,611	9,616	3,120	3,698	5,451	8,018	10,196	5,978	7,212	10,740	15,629	19,812
55-59	2,304	2,720	3,695	5,089	6,869	2,531	2,952	4,131	5,363	7,554	4,835	5,672	7,826	10,452	14,423
60-64	1,659	2,001	2,794	3,623	4,574	1,952	2,353	3,233	4,185	5,115	3,611	4,354	6,027	7,808	9,689
65-69	1,269	1,382	1,871	2,489	2,901	1,386	1,577	2,400	2,859	3,576	2,655	2,959	4,271	5,348	6,477
70-74	764	850	1,112	1,473	1,861	910	1,017	1,463	1,981	2,430	1,674	1,867	2,575	3,454	4,291

75 and over	868	918	1,351	1,696	1,974	1,160	1,317	1,921	2,553	3,173	2,028	2,235	3,272	4,249	5,147
All ages	120,872	142,826	190,468	227,526	257,309	119,280	140,734	195,581	230,994	259,734	240,152	283,560	386,049	458,520	517,043

Notes:
(a) The term Indigenous is used in this publication to refer to Australian Aboriginal and Torres Strait Islander peoples. All ABS Indigenous population statistics are based on responses to the ABS standard question for Indigenous identification,
which is used in self-enumerated collections. The same census question has been used to determine Indigenous status (but not its component peoples) since the 1981 Census.
(b) Each year based on the respective Census year (ie - 2006 data based on 2006 Census).

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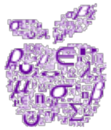

Environment and Energy Datasets

This dataset have been designed to increase students' understanding of ABS data & statistics in general, while giving them a fascinating insight into the lives of Australians. Dataset Env1 shows what steps Australians are taking to reduce their water usage in times where environmental sustainability is an important concern.

The data used in the sets have been extracted from a wide range of ABS publications and adapted to make them easy to use, print and graph. Data within the sets has been updated with the latest data available, at the time of publication. If you want other data, you can access all online ABS publications through the Statistics page on the ABS website (abs.gov.au).

Download dataset Excel file here:
(all datasets)

.xls

Datasets

	Title	Intervals	Australian Curriculum Reference	ESU next updating
Env1	Steps taken to the last 12 months to save water in the garden, by State / Territory, 2010	n/a	▶ Geography	Early 2014

View datasets on the web below:

Env1: Steps taken to the last 12 months to save water in the garden, by State / Territory, 2010

	NUMBER ('000)								
	NSW	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT**	**Aust.**
Use grey water	260.4	457.5	179.6	106.4	63.8	11.8	3.7	15.7	1,098.9
Rainwater collected in other container	26.9	46.2	9.9	3.3	n.a	1.1	n.a	1.7	90.5
Use rainwater collected in other container	35.5	42.7	12.6	7.5	8.0	1.1	1.2	2.1	110.6
Use mulch	440.0	517.3	380.3	176.3	237.2	49.0	19.6	26.7	1,846.4
Plant native/ low water consuming plants	207.0	254.4	196.3	96.5	148.7	20.1	8.4	13.3	944.7
Water at cooler times of the day	291.4	157.3	169.0	116.9	169.1	30.9	15.5	7.5	957.8
Water more thoroughly but less frequently	97.3	68.2	65.9	63.7	65.1	10.4	6.3	2.1	378.9
Only water when necessary	397.2	306.5	252.9	147.6	184.7	28.1	14.3	20.0	1,351.3
Don't water lawn/garden	203.4	218.0	195.5	95.3	40.1	25.0	4.0	16.9	798.2
Use rainwater from rainwater tank	125.8	203.2	194.7	80.4	10.2	3.8	0.9	6.8	625.6
Other steps taken	86.5	90.7	52.1	45.5	61.9	4.8	2.7	7.1	351.2
No water saving activities reported/ don't know	859.2	601.3	570.8	169.6	282.2	83.4	29.3	47.6	2,643.5
Total households(a)	2,045.2	1,747.6	1,390.1	572.2	790.8	180.6	66.9	113.1	6,906.4

	PROPORTION (%)								
	NSW	**Vic.**	**Qld**	**SA**	**WA**	**Tas.**	**NT**	**ACT**	**Aust.**
Use grey water	12.7	26.2	12.9	18.6	8.1	6.5	5.6	13.8	15.9
Rainwater collected in other container	1.3	2.6	0.7	0.6	n.a	0.6	n.a	1.5	1.3
Use rainwater collected in other container	1.7	2.4	0.9	1.3	1.0	0.6	1.8	1.8	1.6
Use mulch	21.5	29.6	27.4	30.8	30.0	27.1	29.3	23.6	26.7
Plant native/ low water consuming plants	10.1	14.6	14.1	16.9	18.8	11.1	12.5	11.8	13.7
Water at cooler times of the day	14.2	9.0	12.2	20.4	21.4	17.1	23.2	6.7	13.9
Water more thoroughly but less frequently	4.8	3.9	4.7	11.1	8.2	5.7	9.4	1.9	5.5
Only water when necessary	19.4	17.5	18.2	25.8	23.4	15.5	21.4	17.7	19.6
Don't water lawn/garden	9.9	12.5	14.1	16.7	5.1	13.8	6.1	15.0	11.6
Use rainwater from rainwater tank	6.1	11.6	14.0	14.1	1.3	2.1	1.3	6.0	9.1
Other steps taken	4.2	5.2	3.7	7.9	7.8	2.6	4.0	6.3	5.1
No water saving activities reported/ don't know	42.0	34.4	41.1	29.6	35.7	46.2	43.9	42.1	38.3

Notes:
n.a - not available for publication but included in totals where applicable, unless otherwise indicated

(a) Totals do not equal the sum of items in each column as more than one step can be reported.

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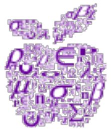

Archived Datasets

These datasets have been archived because they represent old datasets used previously but do not form part of our current set. Additionally, they will no longer receive updates from Education Services. However, they still may be useful for increasing students' understanding of ABS data & statistics in general, while giving them a fascinating insight into the lives of Australians.

The data used in the sets have been extracted from a wide range of ABS publications. If you want other data, you can access all online ABS publications through the Statistics page on the ABS website. You can find the current set of data through the Education Services homepage.

Economic

Dataset	Title	Intervals	Excel file
E5	Average weekly total cash earnings, by Industry, by Sex	Monthly	.xls
E7	Balance of Payments, Annual current account	Financial Year	.xls
E9	Taxation, by Level of government	Financial Year	.xls
E10	Major components of total taxation, All levels of government	Financial Year	.xls
E14	Household assets and liabilities	Financial Year	.xls
E15	Demand for credit, Net transactions during period	Mixed	.xls

Social

Dataset	Title	Intervals	Excel file
S3	Regions of birth, Proportion of Australia's population	Financial Year	.xls
S4	Australia's top 50 countries of birth, by Estimated Resident Population, by Median Age, by Sex Ratio	Financial Year	.xls
S7	Time use, All persons, Primary Activities, by Sex	Selected Years	.xls
S9	Sources of support in times of crises, by Age, by Sex	Yearly	.xls
S10	Historic growth of population of Australia, selected years from 1788	Selected Years	.xls
S11	Minimum estimates for Indigenous population, Australia, 1788-1971	Selected Years	.xls

History

Dataset	Title	Intervals	Excel file
H5	Top 30 countries of birth of people counted in Australian censuses from 1901 to 2006	Selected Census Years	.xls
H6	Sex ratio of Australian States and Territories, 1796 to 2007	Yearly	.xls
H7	Growth of the Australian population, selected years from 1788 to 2007	Selected Years	.xls

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Education Services

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Resources

Games and Apps

Please note Internet Explorer is the preferred option when accessing the games below.

The games provided by Education Services Australia (ESA) are under licence. You must agree to the Conditions of Use before accessing each game.

The ESA games are created using Flash, and the iOS app is created for devices that use iOS. These games may not able to be accessed by all users.

Census

Hi, I'm the Census Collector for this area. This is my ID card. There is a Census on August 8, 2006.
Please fill out this Census Form on Census Night and we will be back to collect it.
[click anywhere to continue]

The Obstacle Game

Run That Town (iOS App)

Probability

Spinners - Predict and Test

Spinners: Basic Builders

Mystery Spinner: Challenge

Dice Duels: Go-kart Race

Making predictions

The Slushy Sludger: Best Guess

The Vile Vendor: Best Guess

The Foul Food Maker: Questions

Spinners: Match Up

Variation/sampling

Random or Not: Explore Numbers of Jubes (1:1)

Random or Not: Explore Runs of Jubes (1:1:1)

Matchbox Machines

Questioning statistics

Conducting a survey

Media Report: Junk Food

Home Internet Survey

Leisure Survey: Popular Sports

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Classroom Activities

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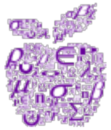

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Virtual presence

Request free teacher Professional Development
Learn to navigate through the ABS website on a virtual website tour to access ABS data and education resources. This customised PD delivered to your school over the phone includes materials mailed to you prior to the PD date.

For the PD, a presenter from Education Services is put on speaker phone at your school and you and your colleagues follow their instructions. Attendance certificates are available on request.

Please email education@abs.gov.au to request a PD session.

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Education Services

Education Services home page > CensusAtSchool home page

Resources

Stats Quest: We want your students' work

Have your students been using lessons or data from the ABS? Teachers are invited to submit copies of exemplary student work by post, fax or email to the ABS Education Services Unit. From these, student work will be selected to be posted on the Education Services web pages with acknowledgement given to the student and the school.

Student Name	Teacher	School	Description of Work	PDF
Roisin Hille	D. Buckley	John Curtin College of the Arts	The dominant hand will have a marginally faster reaction time in comparison to the non-dominant hand.	.pdf
Mika Cull	D. Buckley	John Curtin College of the Arts	Reaction times and lack of sleep of year 8, 9 and 10 students.	.pdf
Bryn Young	J. Callaway	John Curtin College of the Arts	The reaction times between year 8 boys and girls	.pdf
Isha Singh	J. Callaway	Karratha Senior High School	Reaction Times of year 8 boys dominant versus non dominant hands.	.pdf

You can download a copy of the submission form here: .pdf

All students who submit work, regardless of whether or not it is displayed on our web pages, will be acknowledged with a certificate...a great way to reward students and promote high quality work in the classroom.

Please note that we are unable to return original work samples.

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Education Services

Education Services home page > CensusAtSchool home page

Resources

Teacher Submitted Activities

Send us activities you have set for your students that use CensusAtSchool or ABS data and we'll publish them here to share with your professional community.

Case Studies are brief summaries of how Australian schools are using CensusAtSchool data in the classroom.

Email:
education@abs.gov.au

Post:
Education Services Unit
GPO Box 2796
Melbourne VIC 3001

Name	Year	Description	Download
Maths			
Statistics and Probability Gleeson College	9	This activity was developed by professional learning coordinator, Gerald Carey from Gleeson College in SA. This activity includes a rubric. Use CensusAtSchool data to analyse and make predictions on topics such as eye colour, favourite foods and how students travel to school.	.pdf RTF
Investigation: Reaction Time John Curtain Collage of the Arts	8	This activity was developed by maths teacher, Donna Buckley from John Curtin College of the Arts in WA. This activity includes a rubric. Use CensusAtSchool data to investigate reaction times and whether certain factors could affect reaction times.	.pdf

Eye Colour Regency Park Primary School	5-6	Use CensusAtSchool data to discover if your school class is similar to others by comparing students' eye colours.	Activity Eye Colour.rtf (RTF document 54 KB) Spreadsheet_ Year 5.xls (xls document 39 KB) Spreadsheet_Year 6.xls (xls document 40 KB)
Taking Real Data Further Mathematically Presbyterian Ladies College	11-12	This activity was developed by maths teacher, Andrew Stewart from Presbyterian Ladies College in Melbourne. The activity and accompanying Excel spreadsheet are designed for year 11-12 students to analyse categorical CensusAtSchool data.	Activity_Taking Real Data.doc (Word document 115 KB) Spreadsheet_Taking Real Data.xls (xls document 199 KB)
In Pursuit of Beauty	10-12	Use CensusAtSchool data and ClassPad calculators to investigate gender and physical characteristics variables of students.	Activity_Pursuit of Beauty.pdf (PDF document 548 KB)
CensusAtSchool Data from Albany and Perth Albany Senior High School		Jan Forte developed an extensive list of questions for her students to answer using data about students from Albany and Perth. This activity gives students the chance to investigate and discuss issues about data quality and sampling.	Activity_Albany & Perth.rtf (RTF document 970 KB) Spreadsheet_Albany Excel Sheet.xls (xls document 64 KB) Spreadsheet_Perth Excel Sheet.xls (xls document 65 KB)

A Picture Tells A Thousand Words Canterbury Girls Secondary College	8	Use CensusAtSchool data about students' use of technology at home to format spreadsheets and display data. Use CensusAtSchool data to learn some of the built in functions of Excel such as minimum, maximum and median.	Activity_Thousand Words.rtf (RTF document 613 KB) Handy Functions.rtf (RTF document 1,254 KB)
Probability Scotch College	9	Students generate a dataset from the CensusAtSchool Random Sampler containing 50 male and female samples. Using the data contained in their samples, students find percentages, predict probabilities and compound events.	Activity_Probability.rtf (RTF document 5,619 KB)
Cross Curricular			
Using CensusAtSchool as a Business Education Resource	5-10	This article appeared in Compak Issue 2 in 2009. As well as providing an overview of CensusAtSchool, this article has three activities covering topics such as: sources of income; marketing surveys; and income and gender. This activity covers: Economics, Civics and Citizenship and Commerce.	Activity_C@S Bus. Ed.pdf (PDF document 113 KB)
How Much Can You Earn?	Middle Years	Use ABS data to explore average employee earnings for men and women in particular industries. This activity covers: Economics, ICT, Financial Literacy and Mathematics.	Activity_Average Weekly Earnings.rtf (RTF document 85 KB)
The Very Challenging Trivia Quiz on Australia		Use ABS data to answer questions about Australia, its population and characteristics. This activity covers: Literacy / Numeracy, ESL and Civics and Citizenship and is suitable for all year levels as well as Adult Education.	Activity_Trivia Quiz on Australia.rtf (RTF document 10,058 KB)
Migration and Estimated Resident Population	Middle Years	Use ABS Social Datasets to explore changes in migration patterns and estimated resident population. This activity covers: SOSE, Geography and Literacy/ Numeracy.	Activity_Migration.rtf (RTF document 57 KB)

			Activity_Estimated Resident Population.rtf (RTF document 35 KB)
Australia's Top 50 Countries of Birth, Estimated Resident Population, Median Age and Sex Ratio	Middle Years	Uses a new ABS Social Dataset to explore countries with the highest number of people residing in Australia, and the differences between these countries in terms of ERP, Age and Sex Ratio. This activity covers: Humanities subjects.	Australia’s Top 50 Countries of Birth.docx (Word document 23 KB)

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Case Studies

Mathew Flinders Girls Secondary College

Students completed the CensusAtSchool ‘Who Am I’ activity as the mathematics component of their introductory unit for Year 9. Working in pairs, students compared their classmates’ physical characteristics with a random sample of Year 9 students taken from the CensusAtSchool database. Students then measured the central tendency of their datasets by calculating mean, median and mode.

Anglesea Primary School

Anglesea Primary School integrated CensusAtSchool data with a major project focused on Inquiry-based learning. The project was given to grade 5 and 6 students who had an hour a day to work on their chosen Inquiry Topic. At the end of term students gave a class presentation of their findings to their parents and peers.

Amaroo School

Margaret Wong, Head of Mathematics, developed a three part CensusAtSchool assignment for her Year 8 and 9 classes. First, students selected a CensusAtSchool sample and summarised the data using tables and graphs. Then students surveyed their classmates and compared the results with a CensusAtSchool sample. Finally, students presented their findings and explained how the data could be used to promote a product or service.

Carlton South Public School

Ronelle Hewes introduced her Year 5 and 6 students to CensusAtSchool data by getting them to pose a question relating to data contained in CensusAtSchool Questionnaires. Once students had developed their question, they identified the data necessary for answering their question and generated an appropriate data set in the Random Sampler. Students then analysed the data using percentages or averages, created a table and a graph that best illustrated their findings, and wrote a statement to help explain the data.

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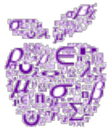

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Historical Publications - All ABS publications from 1994 onwards are available full text on the ABS website. Check the Historical Publications Online link on this page to check for titles and coverage.

Historical Publications Index - The Index lists the national output of the ABS published between 1907 and 1993. State publications are not included.

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